

# The CONSTRUCTOR

OFFICIAL PUBLICATION OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA



Volume XXXVI

OCTOBER 1954

Number 10

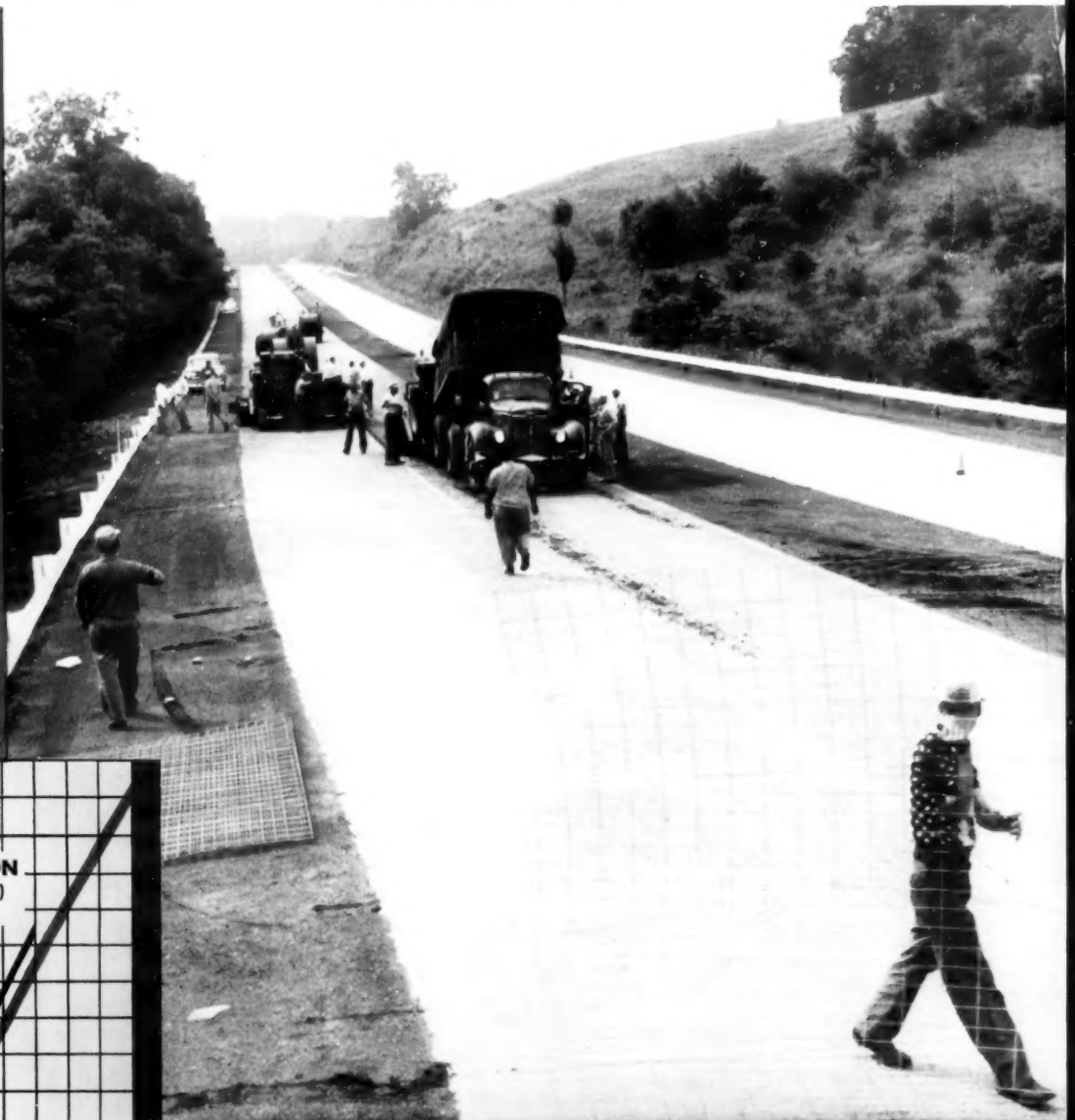
○ BUILDINGS

○ HIGHWAYS

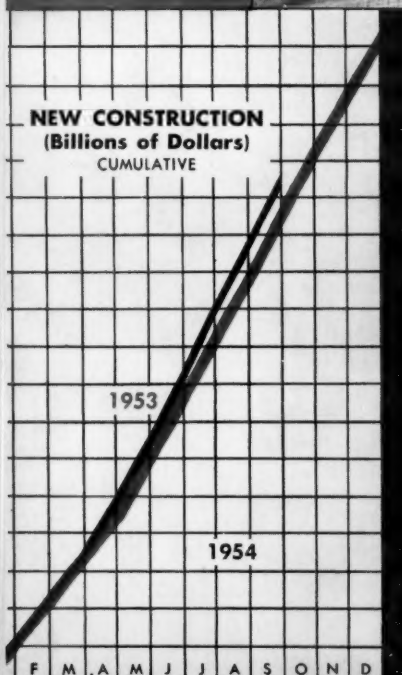
○ AIRPORTS

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PUBLIC WORKS



**NEW CONSTRUCTION**  
(Billions of Dollars)  
CUMULATIVE



*Midyear Survey of Construction Conditions—23*

*A.G.C. Boards Act on Industry Problems—27*

*Virginia Highway Maintenance by Contract—50*



**TOUGH!** Using Rear Steer to angle the bulldozer blade and spill the material over the side of the fill. Impossible with any other grader-bulldozer.

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Good going or bad . . . earth, stumps or rocks . . . this fast, hydraulically operated bulldozer can do work far beyond the range of such an attachment on an ordinary motor grader, thanks to the extra power of All-Wheel Drive and super-maneuverability of exclusive All-Wheel Steer. By swinging the rear end of the grader to right or left, the machine can be used as an angledozer.

The bulldozer blade is of welded steel construction, heavily built and reinforced to handle successfully work of the rough-and-tumble variety pictured on this page, and move maximum amounts of material when the going is easier.

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**TOUGHER!** Rocks and earth are needed to repair this washout. Traction is ample. Powerful drivers hold front end steady.



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This exclusive patented 3-T process keeps Nylon or Rayon cord at its most bruise-resistant, heat-resistant point. It controls tire growth, reduces cracking, tread and body failures to new LOWS, keeps tires in shape for re-lugs and recaps. Remember, only Goodyear can give you 3-T Nylon or Rayon. Remember it next time you specify *any* type tire!

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FOR EACH JOB, THERE'S A COST-CUTTING GOODYEAR TIRE!

# GOODYEAR

MORE TONS ARE HAULED ON GOODYEAR TRUCK TIRES THAN ON ANY OTHER KIND  
THE CONSTRUCTOR, OCTOBER 1954



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SURE-GRIP

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*And Remember*

NOTHING ELSE  
TAKES IT LIKE  
3-T NYLON

# CUTS Winter Concreting Costs



**'Incor' Saves \$1 per Cu. Yd. on Heating Costs and 2 Months' Time on Hammel Houses**



**F**RAME CONCRETING on Hammel Houses, 14 seven-story buildings, began November 16, 1953. CAYE CONSTRUCTION CO., INC. had a Winter job on their hands, and as they put it, there wasn't any question, the cement to use was 'Incor'.

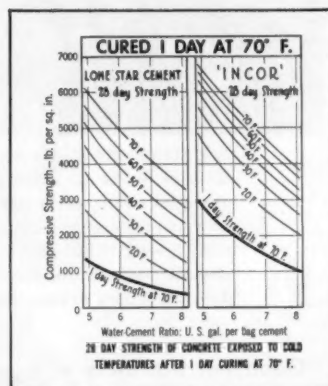
With 'Incor' 24-Hour Cement and one-day heat-protection, forms were stripped and re-used in 24-48 hours, averaging 1.3 floors a day, even at lowest outside temperatures. Heaters using propane cylinder gas provided clean, uniform heat, with minimum labor costs.

*The Contractor figures 'Incor' saved two months' time and cut heating costs by two-thirds, saving \$1. per cu. yd. of concrete.*

Concrete design called for 550 lbs. cement per cu. yd., and 3000 psi 28-day strength. Tests showed strengths uniformly close to 4000 lbs. . . field corroboration of data summarized in graph, shown at right, above.

The saying—"Any time is 'Incor' time"—goes double in cold weather!

\*Reg. U. S. Pat. Off.



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THE ENTIRE CONSTRUCTION FIELD

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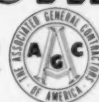
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# The CONSTRUCTOR

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### COVER

The Pennsylvania Turnpike, as it runs through the scenic mountains of the south central portion of the state near Somerset, is getting a resurfacing for 22 miles between the Laurel Hill and the Allegheny Tunnels. Crews of the Latrobe Construction Co., Latrobe, Pa., prime general contractor on the job, are shown laying 11½ x 7 ft. sections of welded wire fabric as reinforcement for the asphalt surface. Pavers, in background, are being loaded with hot mix from a truck. (Photo by Wire Reinforcement Institute, Inc.)

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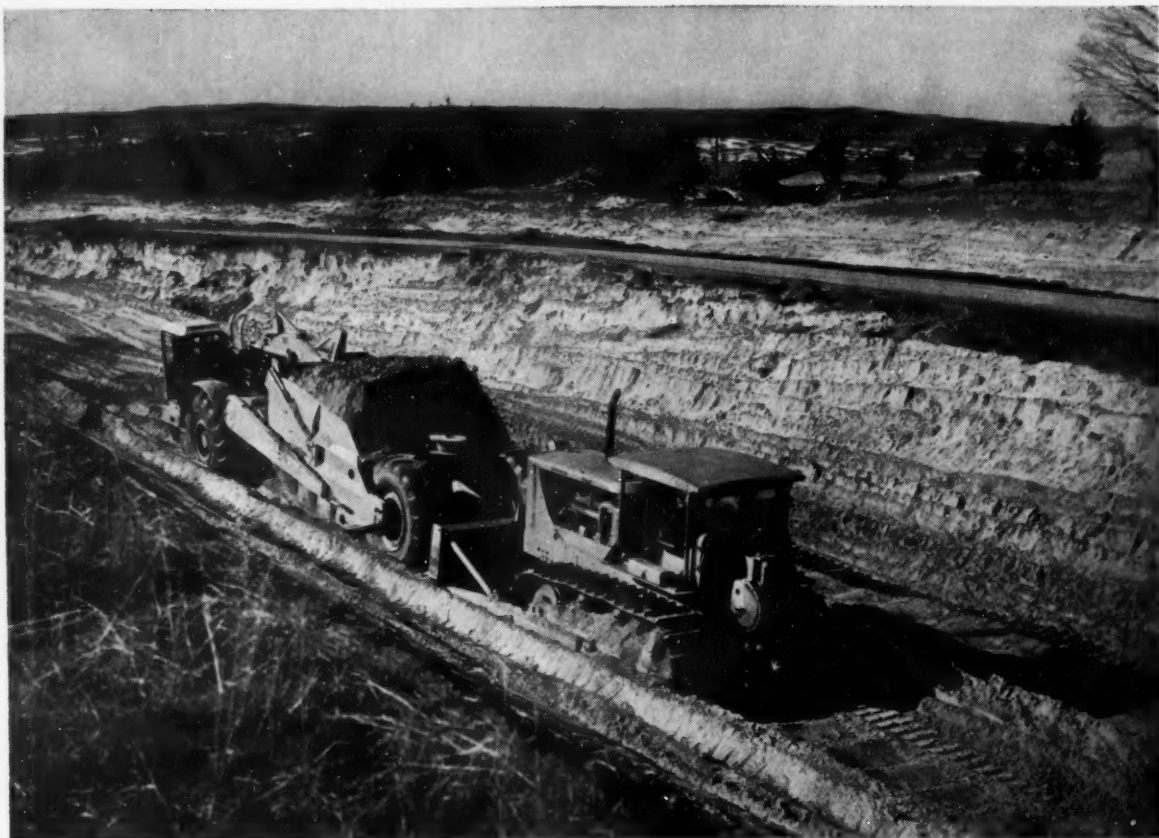
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*Moving frozen earth on US-10*



## JOB-ENGINEERED FINANCE PLANS



A cooperative distributor (Michigan Tractor and Machinery Co. of Detroit) and a competent contractor (Mt. Pleasant Contractor Chelsea Utterback) recently worked together on moving a 500,000 yard mountain of earth along an 8 mile stretch of highway. In addition to his own equipment, Mr. Utterback needed three new Caterpillar Model DW 21 Tractors, and a new Caterpillar D-8 Pusher to do the job.

Michigan had the equipment Mr. Utterback

needed and C.I.T. Corporation supplied the necessary financing. In Mr. Utterback's words: "C.I.T. financing helped me add to my equipment fleet and keep a big job on schedule."

New equipment may be the answer for some of the projects coming up on *your* job schedule. You pick the equipment you need. We'll put a "job-engineered" finance plan to work with you or your distributor. Write or call us.

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**Midyear meeting** of the Governing and Advisory Boards of the A.G.C. in St. Louis, Sept. 27-29, was featured by hard-working sessions and committee meetings in which significant problems facing the industry were considered and acted upon, including labor policy, subcontractor relations, and peculiar market conditions in construction today. Report on actions taken by this meeting, the largest in A.G.C. history, begins on page 27. President John MacLeod, Paramount, Calif., presided and outlined his views of industry problems.

Managing Director H. E. Foreman, in his midyear report to the boards, pointed out the increasing strength of the construction industry in the face of continuing readjustment among different segments of the domestic economy, and of tension and mounting uncertainties coming out of international developments (page 59).

**Officers for 1955** nominated by A.G.C. Governing and Advisory Boards are George C. Koss, Koss Construction Co., Des Moines, for president and Frank J. Rooney, Frank J. Rooney, Inc., Miami, for vice president (page 30). Elections of officers and directors will be by mail ballot in December.

**Record volume of construction** should continue for the next six months, with stable conditions prevailing in material prices and wages and increasing competition among contractors, according to a national survey early last month by the A.G.C. among its chapters and national directors. The findings of the survey were considered by the Governing and Advisory Boards at the St. Louis Meeting. (Details of survey on page 23.)

**Third quarter of 1954** ended with construction industry continuing its record-setting pace, and with September setting a new high mark for the seasonally adjusted annual rate of new construction. Cumulative total of new construction for the first nine months of the year was \$27.37 billion, 4 per cent over same 1953 period (page 7).

**Positive labor** legislative policy adopted by A.G.C. Governing and Advisory Boards meeting in St. Louis opposes any weakening of existing legislation regarding the construction industry and calls on the National Labor Relations Board to handle aggravated jurisdictional disputes.

(Text of the statement appears on page 30).

**NLRB Chairman** Guy Farmer spoke out last month in defense of board policies which he said were impartial and not pro-labor or pro-management. Mr. Farmer made these remarks at a time when the Eisenhower-appointed board majority was under attack from labor leaders for having a "management bias."

**Resource development** views of Administration given on two different occasions last month by President Eisenhower. The Chief Executive stressed an aim for more local responsibility and participation in the resource development picture, but stated that the federal government will step in where it seems necessary (page 45).

**St. Lawrence Seaway** points up the need for deepening the Great Lakes connecting channels and improving lake city harbors, Maj. Gen. S. D. Sturgis, Jr., Chief of Engineers said last month. These improvements are necessary if the Great Lakes region is to derive the fullest potential from the 27-foot St. Lawrence Seaway soon to be constructed (page 44).

**President's Highway** Improvements Advisory Committee, headed by Gen. Lucius D. Clay, scheduled two days of hearings in Washington, D. C., Oct. 7-8 and had invited 21 trade associations and others, including The Associated General Contractors of America to present their views on highway development. The advisory committee has been charged with making recommendations for bringing about the President's proposal for expanding the national highway system. (Earlier story on page 48.)

**Toll roads supported** by ranking government official last month who announced that a recent pilot study has resulted in revising the long-standing federal policy in opposition to toll roads. Robert B. Murray, Jr., Under Secretary of Commerce for Transportation, said that, "Now toll roads are supported as a sound solution for many of the costly deficiencies on our national system of interstate highways (page 47)."

**Charles E. Daniel**, president of the Daniel Construction Co., Greenville, S. C., A.G.C., was appointed to the United States Senate Sept. 6 by Gov.

James F. Byrnes to succeed South Carolina's late Senator Burnett R. Maybank until the election of a successor in November (page 80).

**President Eisenhower**, in a letter to the state governors and territory officials, gave his full support to the state and White House education conferences to be conducted soon to find ways of solving the current teacher and classroom shortages handicapping our school systems. New law makes \$700,000 available to defray portion of costs of these meetings.

**Tax amortization policies** revised by the Office of Defense Mobilization to assist areas of labor surplus. The new procedures, which go into effect immediately, provide for rapid tax write-offs on a higher than normal percentage of capital investment to firms locating defense plants in areas hit by unemployment and classified by the Labor Department as having "a substantial surplus of labor."

**Private housing starts** for the first eight months of 1954 totaled 780,500, representing a seasonally adjusted annual rate of 1,130,000 units, which if realized, would be the second best housing year in the nation's history, the Bureau of Labor Statistics announced last month. Last year the seasonally adjusted rate of private starts for the first 8 months averaged 1,085,000, while the best year was 1950 when 1,352,200 private dwellings were started (page 7).

**Construction accidents**, along with industrial accidents in general, showed a decline last year over 1952, the government reported this month. Last year, construction industry accident frequency was 32.9 compared with 35.3 in 1952, a decrease of 7 per cent. The 1953 severity rate dropped to 3.2 from 3.7 the previous year (page 54).

**Highway maintenance** work by contract has been carried on in Virginia for many years with "marked success," W. G. S. Britton, assistant maintenance engineer, Virginia Department of Highways, writes this month, in the seventh of a series of articles by state highway officials (page 50).

**Chapter meeting dates**, for the fall and winter convention season of A.G.C. groups, are carried this month for first time, beginning on page 78.

# FOR THE BID THAT WINS

IN ANY TYPE OF  
STEEL FRAMING



FLAT TRUSSES  
AND PURLINS




BOWSTRING TRUSSES

## GET THOSE MACOMBER ENGINEERS OVER ON YOUR SIDE


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## Construction Still at Peak Rate; A.G.C. Survey Forecasts Continuation

» AS the third quarter of the year ended, the construction industry continued its record-breaking pace, with September setting a new high mark for the seasonally adjusted annual rate of new construction.

- The September volume of new construction, according to preliminary estimates by the Departments of Labor and Commerce, equaled the all-time high for any month established in August, \$3.6 billion.

- The seasonally adjusted annual rate of new construction in September reached \$37.9 billion, a new record for any month. This was the third successive month in which the seasonally adjusted annual rate of new construction set a record. The figure for July was \$37 billion, and that for August was \$37.4 billion.

- The cumulative total of new construction for the first nine months of the year was \$27.37 billion, a 4 per cent increase over the total volume for the corresponding period of last year, which was \$26.28 billion.

- The \$3.6 billion of new construction put in place in September represented an increase of 8 per cent over the figure for September 1953.

Commercial construction continued at a record level during September, and private residential construction was at a near-record rate.

Religious and private educational construction in September was at the highest level in history.

While federal construction was below the rate of a year ago, state and local public construction continued to expand in September, with the volume of highway activity especially large.

### A.G.C. Survey Optimistic

A telegraphic survey conducted in early September by The Associated General Contractors of America among its 124 chapters throughout the United States and Alaska and the national directors of the association indicates that the present high level of construction activity will continue or even increase during the next six months. (Page 23.)

In the great majority of responses to the A.G.C. questionnaire, an optimistic outlook prevailed with respect to all major categories of construction—building, highway and heavy engineering activities. In each category, the greatest percentage of the replies anticipated an increase in activity in

the next six months—43 per cent in the case of building, 59 per cent in highways, and 42 per cent in heavy.

The next largest percentage in each category expected the volume of activity to continue unchanged—37 per cent in building, 26 per cent in highways, and 34 per cent in heavy.

Decreases were forecast by only 20 per cent in the case of building, 15 per cent in highways, and 24 per cent in heavy. Local conditions evidently accounted for the minority of answers forecasting a reduced volume of construction in the next six months.

Other significant results of the survey were indications that stable conditions would prevail in material prices and wages for the next six months and that competition among contractors would continue to increase.

### Construction's Biggest Year

It has been apparent for several months that the construction industry is headed for a new record volume this year. With the cumulative total of new construction in the first three quarters running 4 per cent ahead of the figure for the corresponding period of 1953, and the general expectation that the present high level of activity will be maintained, or even increased, the outlook is that the total volume for the year will approach \$52 billion, consisting of more than \$36.5 billion of new construction and more than \$15 billion of maintenance and repair expenditures.

This compares with the 1953 record volume of more than \$50 billion, consisting of \$35.25 billion of new construction and approximately \$15 billion of maintenance and repair expenditures. The indicated increase over last year is about 3.5 per cent.

### Construction and the Economy

In a year when the general level of business activity has declined below the all-time high mark set in 1953, the importance of the construction industry in the national economy has been strongly accentuated by the continued increase in building activity. The position of the construction industry as the largest single production activity in the nation's economy has been strengthened. Of last year's record gross national product of \$364.9 billion, construction accounted for nearly \$1 in every \$7. This year, when the dollar value of all goods

and services has been running at a seasonally adjusted annual rate of about \$356 billion, based on figures for the first two quarters, it is probable that construction will account for more than \$1 in every \$7 of the gross national product.

### Second Best Housing Year

If the present rate of private dwelling construction continues for the rest of the year, 1954 will be the second best housing year in history. The Department of Labor reported last month that private dwelling units started during the first eight months of the year totaled 780,500, representing a seasonally adjusted annual rate of 1,130,000 units. The record year for private housing starts was 1950, when the total was 1,352,200 units. Last year the seasonally adjusted annual rate of private housing starts for the first eight months was 1,085,000 units. Private and public housing starts in the first eight months of this year totaled 796,000 units, a 3 per cent increase over the 771,300 units started in the corresponding period of 1953, despite a reduction in public housing from 29,600 to 15,500 units.

An increase in home-buying is indicated by a continued rise in requests to the VA for appraisals.

### Industrial Production Unchanged

Meanwhile, industrial production has remained substantially unchanged, on a seasonally adjusted basis, throughout this year, at a rate lower than that of last year. The Federal Reserve Board reported a 7 per cent increase in industrial production in August; but this gain was usual for the time of year, and the seasonally adjusted index remained at 124 per cent of the 1947-49 average, the same as in July, and approximately the same as in previous months of 1954.

Factory output of durable goods, such as automobiles and machinery, showed little over-all change in August, but television sets and furniture set the pace for an increase in production of household durable goods. Output of nondurable goods, such as clothing and textiles, increased seasonally following vacation shutdowns in July.

Most other business activities remained at about the levels of recent months.

Doetsch Brothers, Evanston, Illinois contractors, keep their two HD-9G's busy on a variety of jobs, like their extra-production ability: "The 2-yd HD-9G sometimes will do up to three times as much work as a 1-yd machine. Let's say the smaller unit will load a 10-yd truck in five minutes, roughly — then a 9G will load it in two minutes. Where a 1-yd machine will keep one truck going, a '9' will keep three going."



## you can handle **BIGGER** jobs, **TOUGHER** jobs with this **2-YD** Tractor Shovel



Two Tractor Shovels have cut production costs by bringing greater efficiency to a Midwest rock quarry. These two machines, equipped with standard 2-yd buckets, load rock directly from quarry face to rock crusher, eliminating the need of continually moving the crusher. The speed of the two Tractor Shovels enables the crusher to load out 135 eight-ton trucks a day.

Here's a Tractor Shovel with the handiness of the popular Allis-Chalmers 1-yd unit— but with the power, strength and ability to give more than *double* the working capacity.

The Allis-Chalmers 2-yd HD-9G is just right for the jobs that overload lighter machines. Its husky 72-drawbar-hp engine packs big-job stamina. The heavy-duty, 2-yd bucket is shaped to roll-in material — get a full load with less tractor effort. It lifts loads to a dumping height of 11 ft, 4 in. There's plenty of stability, too, with 29,900 lb of weight and extra long tracks. You'll also find many other proved production-boosting features like: all-steel, box A-frame; 1,000-hour lubrication intervals for truck wheels, idlers and support rollers; simple shift pattern; quick-response hydraulic system; unit construction.

Your Allis-Chalmers dealer has all the facts. Ask him to show you how the big-production HD-9G can improve your operations.

# ALLIS-CHALMERS

TRACTOR DIVISION — MILWAUKEE 1, U. S. A.

# A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

## TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for September stands at Index Number 431 according to the A.G.C. Index. The cost figure for September 1953 was 417. The 1913 average equals 100.

Index Number 314. The average a year ago stood at 306. The 1913 average, again, equals 100.

## CONTRACT AWARDS IN 37 STATES

The volume of contracts awarded during August (Index Number 277, based on 1936-38) is a decrease of 48 points from July and an increase of 19 points from August 1953. (F. W. Dodge Corp.)

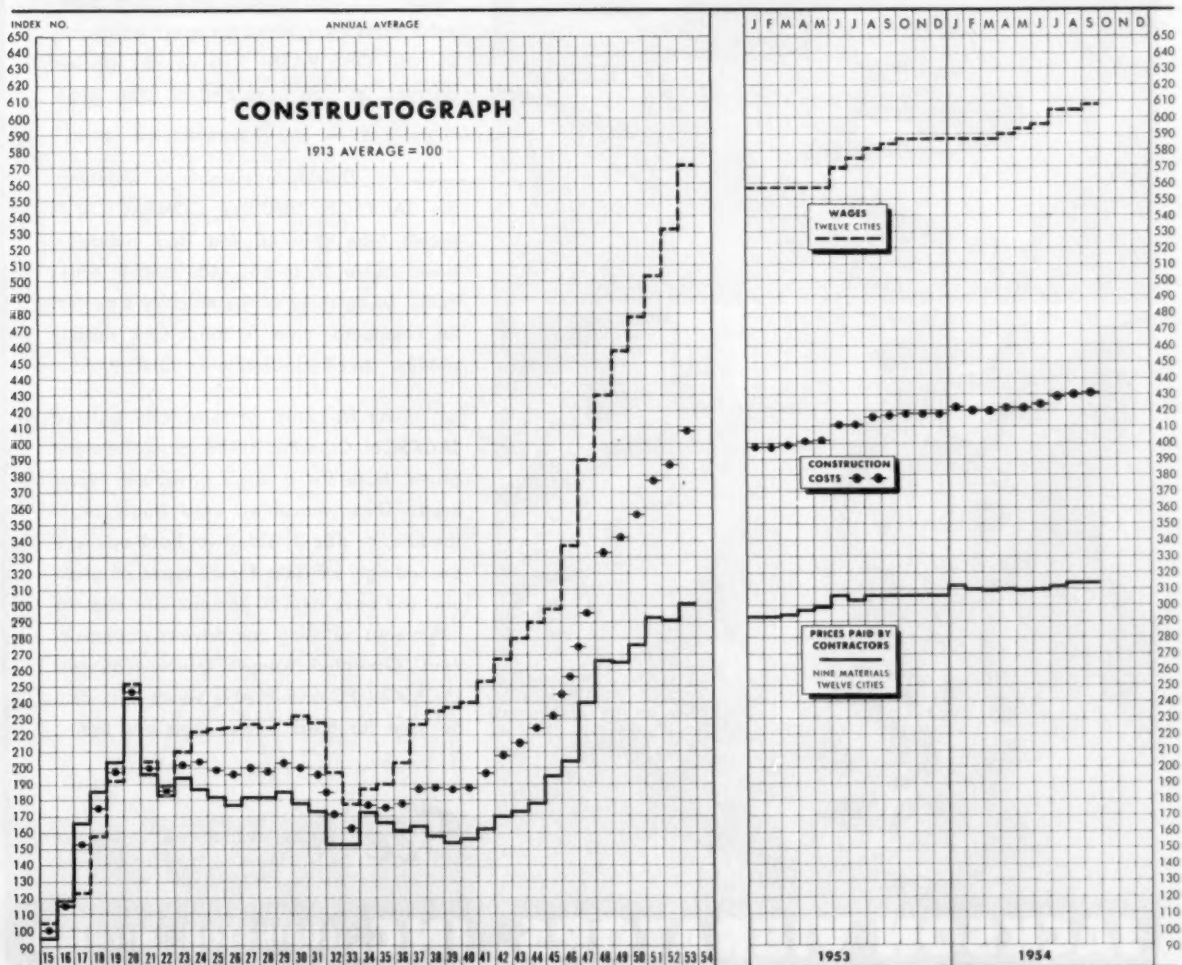
## WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 608, for September. One year ago the average stood at 584. The average prices paid by contractors for basic construction materials for September stand at

## REVENUE FREIGHT LOADINGS

Revenue freight loaded during the first 38 weeks of 1954 totaled 24,320,957 cars. For the same period in 1953, loadings amounted to 28,246,721 cars. This represents a decrease of 13.8%.

## ● Wage, Material Price and Construction Cost Trends

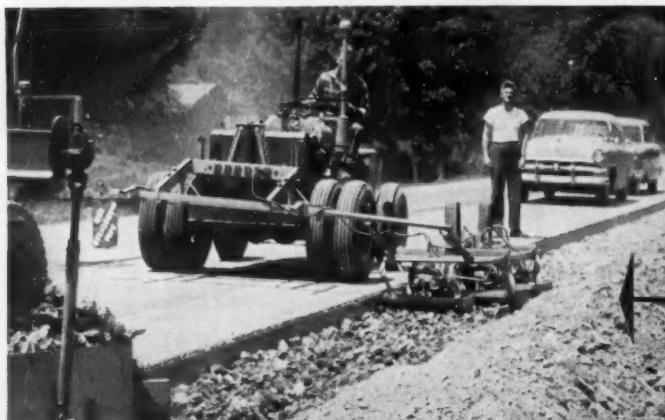




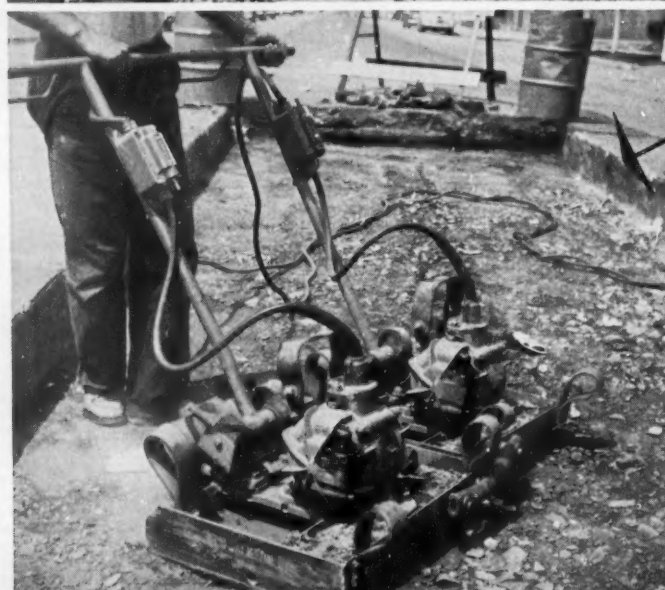
**Best way to achieve SPECIFIED DENSITY  
in ROCK, SLAG, SOIL-BOUND MACADAM, GRAVEL  
and  
SAND BASE COURSES..**



*use*  
**JACKSON  
VIBRATORY  
COMPACTORS!**



On jobs such as this, soil-bound macadam — 5 inches thick, the JACKSON MULTIPLE COMPACTOR, *now more powerful than ever*, achieves specified density in **JUST ONE PASS**. It is equally efficient on rock, or slag base and all other granular soils.



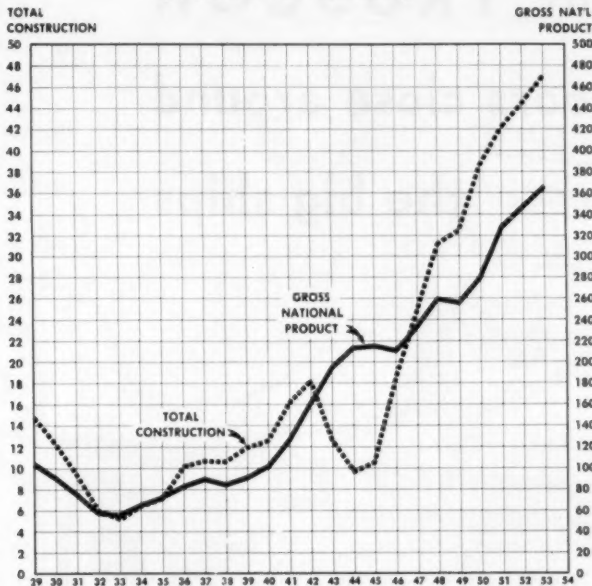
Quickly adaptable to widening, the JACKSON MULTIPLE COMPACTOR is shown here consolidating slag macadam base course 36 inches wide and 9 inches thick. Using three of the machine's powerful compactor units in tandem, it readily obtains specified density in **ONE PASS**.

Twin hook-up of manually guided JACKSON COMPACTORS consolidating gravel base for a large pavement repair area. These machines, used singly or in tandem, or side-by-side twin hook-ups, are exceedingly efficient for all types of granular soil base and fill compaction; also for bituminous patching and driveway construction. Operated from a trailer-mounted JACKSON POWER PLANT which may also be used for other power tools and lights.

*See* your Jackson Distributor or write to us for complete information on these machines.

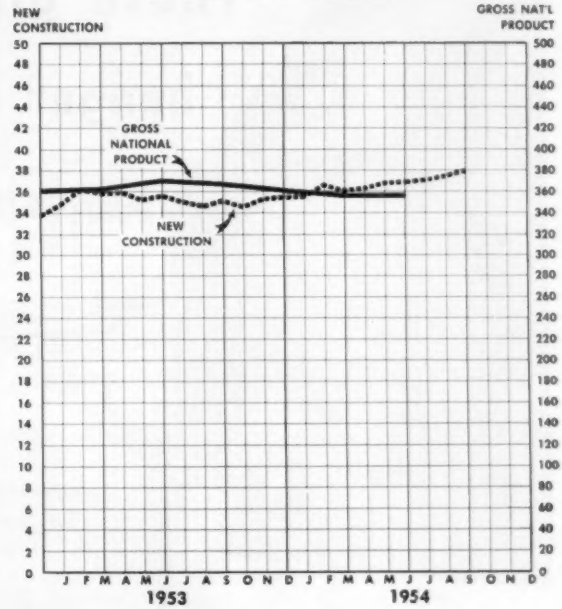
**JACKSON VIBRATORS, INC. LUDINGTON, MICHIGAN**

● **TOTAL Construction Compared with Gross National Product**  
(BILLIONS OF DOLLARS)



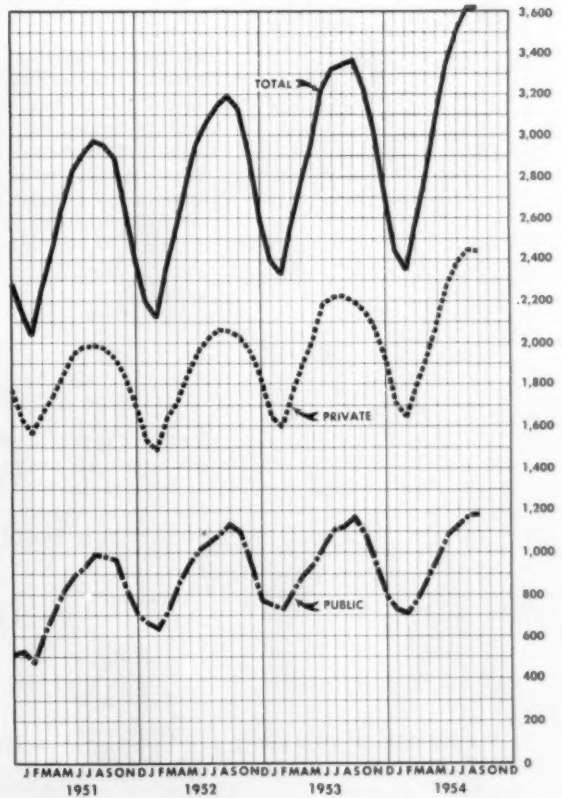
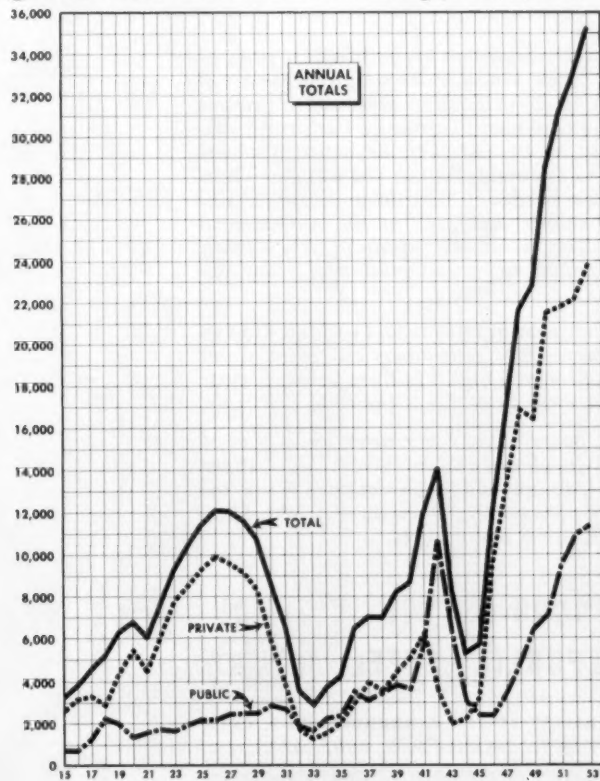
DATA SUPPLIED BY DEPT. OF COMMERCE

● **NEW Construction Compared with Gross National Product\***  
(BILLIONS OF DOLLARS)



\*Seasonally adjusted at an annual rate

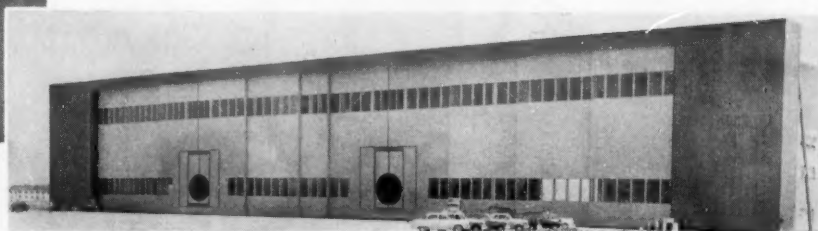
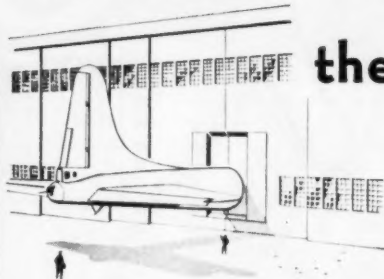
● **New Construction Activity (MILLIONS OF DOLLARS)**



DATA SUPPLIED BY DEPTS. OF COMMERCE AND LABOR



## These giant TRUSCON hangar doors close around the big ships



*At many air bases, Truscon engineering is helping save interior hangar space without sacrificing maintenance efficiency.*

In these double cantilever maintenance-type hangars, pairs of giant Truscon Straight Slide Doors close snugly *around* tail assemblies of big ships! Cut-out door sections and ingenious sealing device mean that maintenance can be performed efficiently and comfortably in any weather, or under blackout conditions . . . with the tail assembly *outside* the hangar. These cut-out door sections can be designed to fit any type or size fuselage and the foam rubber insert allows for variations in height. When no fuselage is in the opening, two sliding closing panels are provided to assure protection from the elements.

This "door within a door" provides a snug seal without damage to fuselage or tail. The straight slide doors can be 35 to 40 feet wide and 65 feet or more high. Fully opened, a clear space 350 to 650 feet or more in width is possible.

Truscon makes hangar doors to fit every need, every size of opening. All are products of more than 28 years' *specialized experience* in big door design and construction. Write for details and specifications describing Truscon Straight Slide Steel Hangar Doors and other major types.

TRUSCON®



**TRUSCON STEEL DIVISION  
REPUBLIC STEEL**



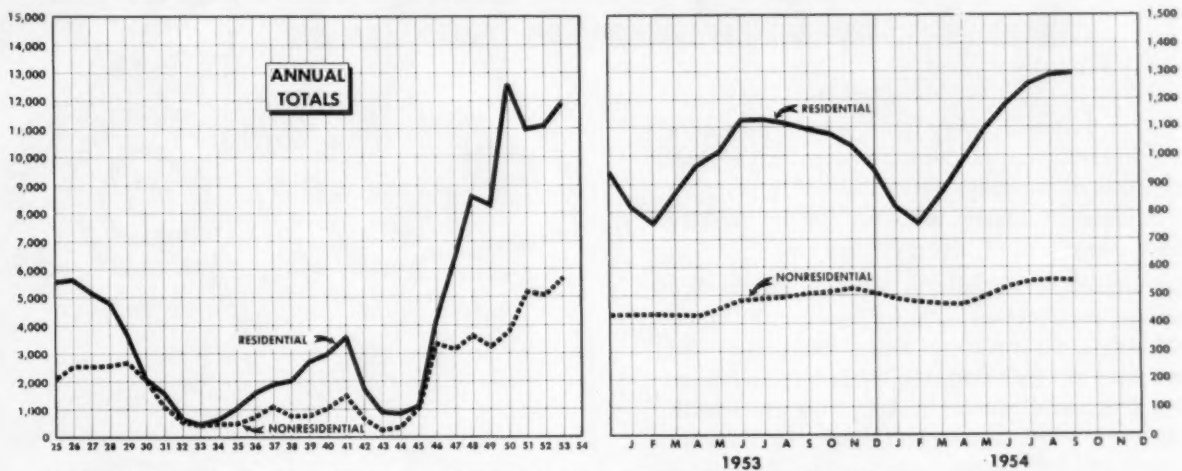
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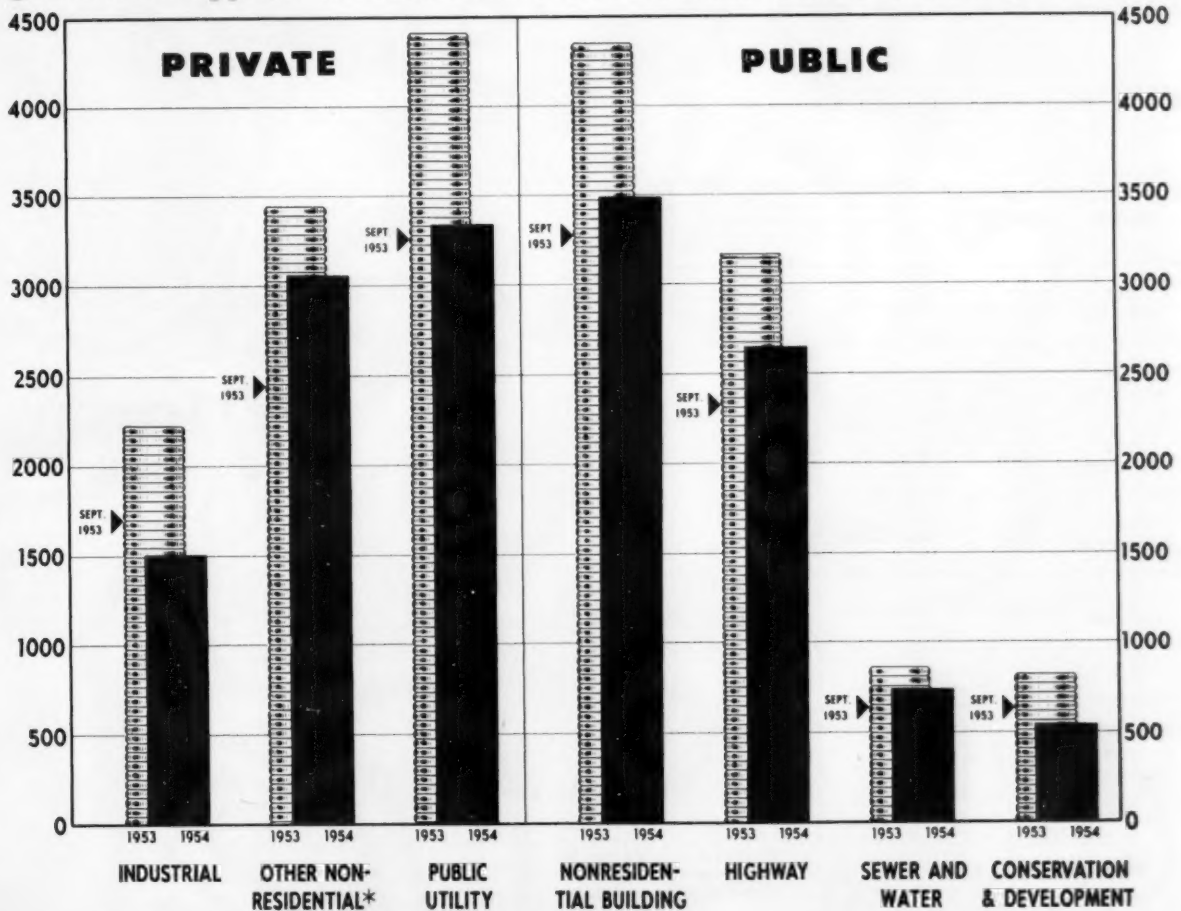
# NEW CONSTRUCTION ACTIVITY

## ● Private Residential and Nonresidential Building \* (MILLIONS OF DOLLARS)



\* Residential excludes farm; Nonresidential includes industrial, commercial, institutional, and social and recreational building, but excludes public utility building.

## ● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1953, 1954 VOLUME THROUGH SEPTEMBER



\* Includes commercial, institutional, and social and recreational building

# Check price per pound of lifting capacity

There is a very quick way to determine which crane or excavator offers you biggest production capacity per dollar of equipment investment. Compare machines on the basis of price per pound of lifting capacity.

Remember, lift capacity is work capacity. Obviously, the machine with the heaviest lift rating not only picks up larger crane loads — it also has more strength and stability to handle bigger dragline and clamshell buckets on a wider work range — more power and speed to increase shovel and hoe production.

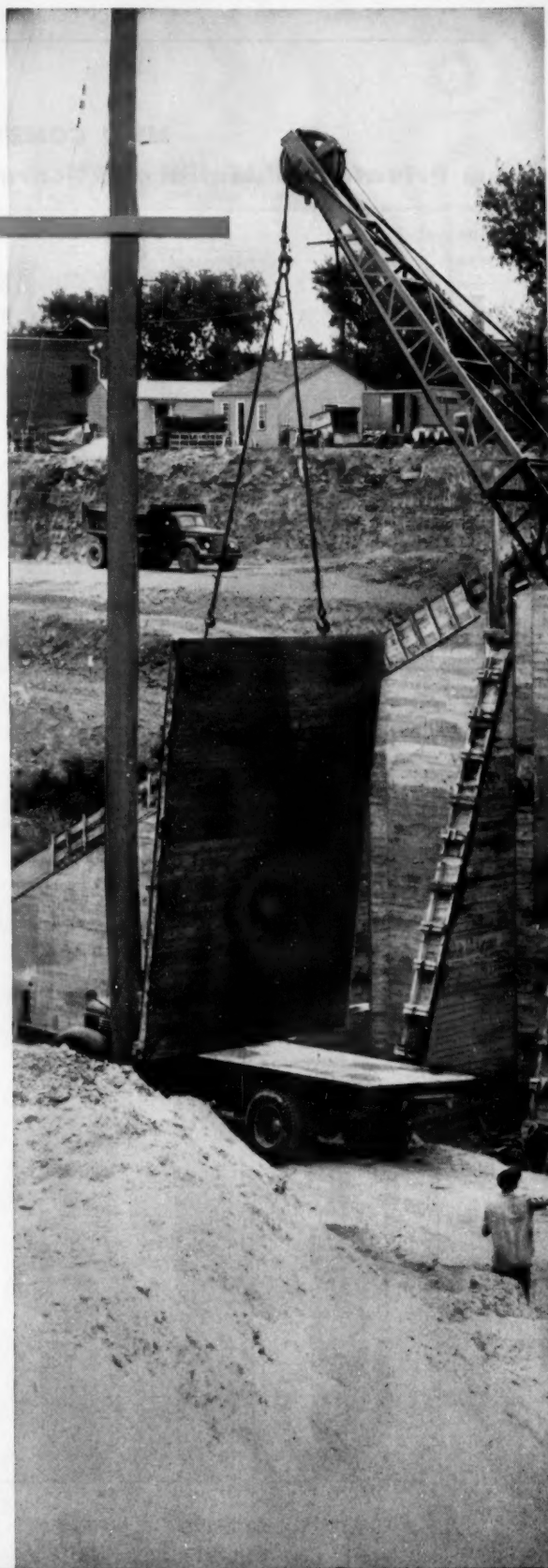
Check the Koehring lift ratings shown below — then ask your Koehring distributor to show you the figures on price per pound of lifting capacity.

compare for yourself:

KOEHRING MODEL	SIZE DIPPER	KOEHRING LIFT CAPACITIES (Crawler ratings based on 75% of tipping load. Rubber-tired machines — 85% of tipping load)		PRICE PER POUND OF LIFT CAP.*
205 CRAWLER	½-Yd.	20,000 lbs.	30-foot boom at 10-ft. radius	?
205 ON RUBBER	½-Yd.	30,000 lbs.	25-foot boom at 12-ft. radius	?
304 CRAWLER	¾-Yd.	27,800 lbs.	35-foot boom at 12-ft. radius	?
304 ON RUBBER	¾-Yd.	50,000 lbs.	30-foot boom at 10-ft. radius	?
405 CRAWLER	1-Yd.	40,000 lbs.	40-foot boom at 12-ft. radius	?
605 CRAWLER	1½-Yds.	72,300 lbs.	50-foot boom at 12-ft. radius	?
1005 CRAWLER	2½-Yds.	159,000 lbs.	50-foot boom at 12-ft. radius	?



\*Figures available on request—ask your Koehring distributor to see them.





**KOEHRING COMPANY** Milwaukee 16, Wis. Subsidiaries: JOHNSON  
PARSONS • KWIK-MIX

THE CONSTRUCTOR, OCTOBER 1954





# INSULATED

# METAL WALLS

for INDUSTRIAL and COMMERCIAL BUILDINGS

ALUMINUM, STAINLESS or GALVANIZED STEEL

In the new plant and office building, illustrated below, the architects have achieved an unusual and distinctive effect in the office front by ingenious employment of Metal Wall areas in combination with glass and other materials. This is one of many examples in which Stainless Steel, Aluminum or Enamel Coated Steel Walls have been used to good advantage in attaining a distinctive over-all design effect. Apart from the decorative possibilities, Insulated Metal Walls are more practical and more economical in every respect. Today, Mahon can point to hundreds of complete industrial plants, powerhouses, office buildings, schools, and other special purpose structures, built with this light weight curtain wall construction. In each case, substantial building economies were realized through lower material costs, lower labor costs, and the cumulative advantages of reduced construction time . . . buildings can be quickly enclosed with Insulated Metal Walls—even under extreme low temperature conditions which would preclude masonry construction. Other important factors to be considered are light weight, and the maintenance-free permanence of Stainless Steel or Aluminum exterior surfaces. Mahon Insulated Metal Walls are available in the three exterior patterns shown at left. Mahon Fluted and Ribbed Walls can be erected up to sixty feet in height without a horizontal joint—an extremely important feature in buildings with high expanses of unbroken wall surface. See Sweet's Files for complete information, or write for Catalog B-55-B.

**FLUSH, RIBBED, or FLUTED**  
Over-all "U" Factor of Various Types is Equivalent  
to or Better than Conventional 16" Masonry Wall

## THE R. C. MAHON COMPANY

Detroit 34, Mich. • Chicago 4, Ill. • Representatives in All Principal Cities

Manufacturers of Insulated Metal Walls and Wall Panels; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms; Rolling Steel Doors, Grilles and Underwriters' Labeled Automatic Rolling Steel Fire Doors and Fire Shutters.



# MAHON

### For Moderate Income Families of Large Cities

(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

The cost of living in most U. S. cities decreased 0.2 per cent for the month ending Aug. 15, and settled at 115, the same level of a year ago, the Labor Department's Bureau of Labor Statistics reports.

This figure, which reflects a decline in food costs as well as lower prices for apparel, housefurnishings, reading and recreation, new cars and gasoline, is 13.0 per cent above June 1950, after which prices rose sharply.

Food, which declined 0.6 per cent during this period, halted a four-month rise that totaled 2.2 per cent. Chiefly responsible for lower prices were large supplies of fresh fruits, vegetables and meats. Eggs and fresh milk advanced seasonally along with bread prices.

Housing costs, led by rents, coal and fuel oil prices, continued to rise, despite lower prices of some furniture, household textiles and many appliances.

Under transportation reductions in new car costs and tire and gasoline prices were offset by higher prices for auto repairs and higher streetcar and bus fares.

Medical care costs rose slightly because of higher fees for physicians' services and group hospitalization.

Despite the drop, it was not enough to affect the wages

of nearly one million railroad workers whose pay is tied to the price index.

The Consumer Price Index, formerly calculated on the base 1935-39 = 100, was converted beginning last year to the new base 1947-49 = 100 in compliance with recommendations of the Bureau of the Budget.

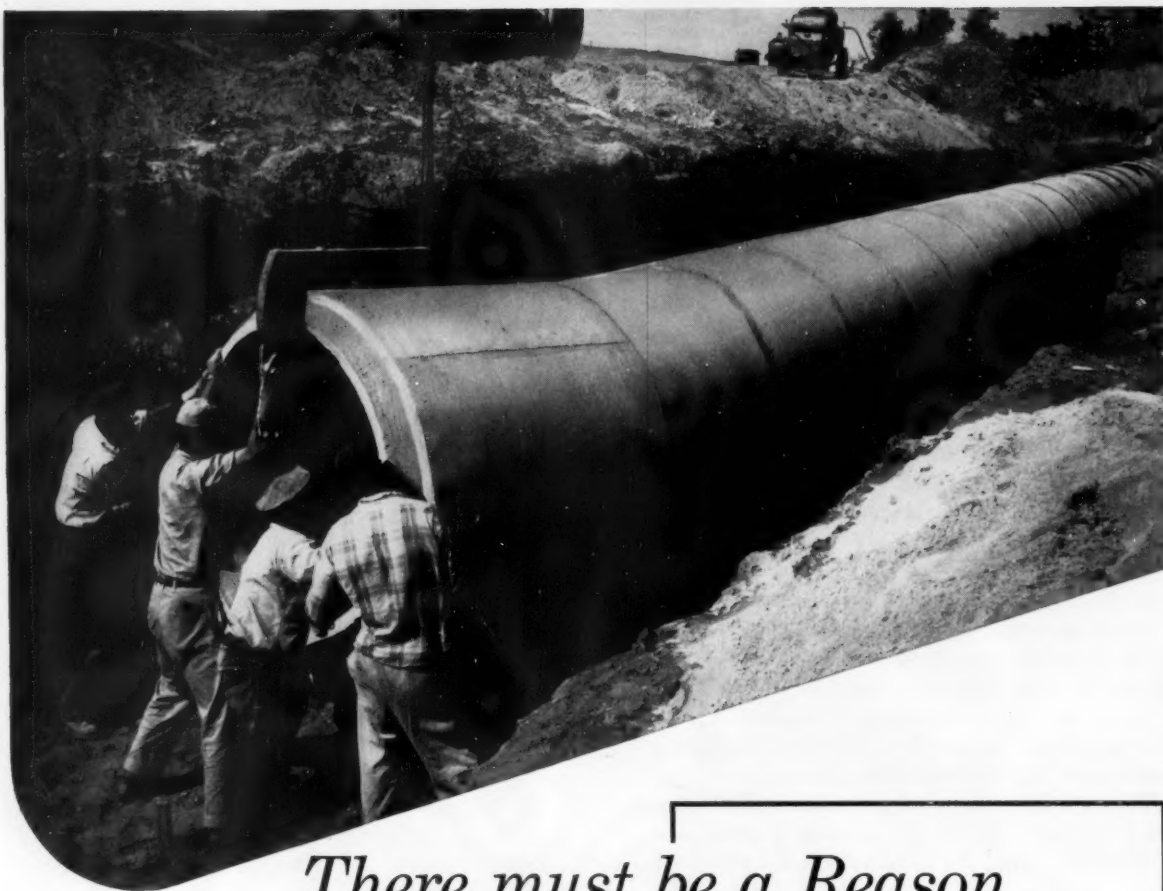
A portion of this index below indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from June 15, 1952 to August 15, 1954.

They are presented here for use by employers who may wish to take these cost of living data into consideration when contemplating adjustments of wages based on increased living costs.

Aside from the change of the base years, the revised index includes prices of about 300 items, compared to some 200 for the previous index. The "weight" assigned to items is now based on facts concerning family expenditures of wage earners and clerical workers found in a survey of consumer expenditures conducted by the bureau.

The first five cities in the table below are checked and reported on monthly. The other 15 cities are surveyed and their indexes published quarterly.

	1952			1953			1954		
	JUNE	JULY	AUGUST	JUNE	JULY	AUGUST	JUNE	JULY	AUGUST
Average.....	113.4	114.1	114.3	114.5	114.7	115.0	115.1	115.2	115.0
New York, N. Y.....	110.9	112.3	112.2	112.0	112.1	112.7	112.9	113.3	113.0
Chicago, Ill.....	114.9	115.0	115.5	115.3	115.7	116.3	117.3	118.0	117.7
Los Angeles, Calif.....	114.8	115.0	114.9	115.4	115.8	115.8	115.7	114.9	115.1
Philadelphia, Pa.....	113.6	114.8	114.9	114.6	114.7	114.9	115.9	116.3	116.2
Detroit, Mich.....	113.9	114.6	115.0	116.6	116.9	116.9	117.1	117.5	116.8
Atlanta, Ga.....	.....	.....	117.0	117.1	.....	.....	117.6	.....	.....
Baltimore, Md.....	113.0	.....	.....	115.1	.....	.....	115.5	.....	.....
Boston, Mass.....	112.0	113.7	113.7	.....	113.1	.....	.....	113.8	.....
Cincinnati, Ohio.....	112.9	113.4	113.4	114.5	.....	.....	114.2	.....	.....
Cleveland, Ohio.....	.....	.....	114.0	.....	.....	115.1	.....	.....	115.3
Houston, Texas.....	114.9	115.2	115.8	.....	.....	116.8	.....	.....	116.5
Kansas City, Mo.....	.....	115.3	.....	.....	115.3	.....	.....	115.6	.....
Minneapolis, Minn.....	114.9	.....	.....	.....	115.6	.....	.....	117.3	.....
Pittsburgh, Pa.....	112.2	113.0	113.5	.....	113.8	.....	.....	115.4	.....
Portland, Ore.....	.....	114.7	.....	.....	115.5	.....	.....	115.5	.....
St. Louis, Mo.....	115.5	.....	.....	115.8	.....	.....	117.4	.....	.....
San Francisco, Calif.....	114.9	.....	.....	116.1	.....	.....	116.8	.....	.....
Scranton, Pa.....	.....	.....	114.0	.....	.....	113.2	.....	.....	112.4
Seattle, Wash.....	.....	.....	114.6	.....	.....	116.8	.....	.....	116.2
Washington, D. C.....	.....	.....	114.1	.....	.....	114.2	.....	.....	114.1



## *There must be a Reason...*

### OWNER

Dell-Parr, Inc. (Shopping Center) Location, Intersection State Routes 2 and 50, West Annapolis, Maryland. 60" Extra Strength Reinforced Concrete Culvert Pipe C76 Table II.

### CONTRACTOR

F. P. Asher, Jr. & Sons, Inc.

### ENGINEER

James D. Hicks, Annapolis, Md.

why successful contractors and engineers invariably specify Universal Vitri-fied — U. S. Concrete Pipe.

There must be a reason why this pipe is getting the call for so many important jobs. As a matter of fact there are **FOUR** reasons

1. **Product Quality.** Modern, mechanized production methods provide highest uniform quality and dependability in our products.
2. **Complete Line.** The right pipe for the job — concrete or vitrified clay in all sizes. One unbiased source of supply.
3. **Prompt Delivery.** Strategic locations of our 8 plants permit prompt shipment and keep freight costs down.
4. **Fair and competitive pricing.**

### PRODUCTS

Sewer Pipe (Vitrified)	Slip Seal Sewer Joint	Flue Lining
Sewer Pipe (Concrete)	Segment Sewer Block	Stave Pipe
Vitrified Liner Plates	Meter Boxes	Chimney Tops
Tylox Flexible Rubber	Ship Lap Wall Coping	Chimney Pots
Coupled Vitrified Pipe	Septic Tanks	Fire Brick
Aerodrane Filter Block	Drain Tile	Fire Clay
	Vitrified Clay Plate Lined Concrete Pipe	
	Conduit for underground steam and insulated piping	

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 Tel. Locust 7846

### FACTORIES:

BALTIMORE, MD., CINCINNATI, OHIO, NEW PHILADELPHIA, OHIO,  
 PALMYRA, OHIO (2), PHILADELPHIA, PA., UHRICHVILLE, OHIO (2)

# UNIVERSAL SEWER PIPE CORPORATION UNITED STATES CONCRETE PIPE CO.

• GENERAL OFFICES • 1500 Union Commerce Building • CLEVELAND 14, OHIO



## Sidelights for Contractors

By John C. Hayes, Counsel

Hayes and Hayes, Munsey Building, Washington 4, D. C.

### Taxes

**Income Tax Regulations.**—The Commissioner of Internal Revenue has announced that new regulations under the Internal Revenue Code of 1954 will be issued as separate Treasury decisions as soon as prepared under the various provisions of the income tax law. These will be published in tentative form in the *Federal Register* to afford interested members of the public a 30-day period to submit comments. At a later date, the regulations as approved will be brought together as the *Income Tax Regulations*.

The first issued tentative rules cover 21 areas in the new tax law, most of which are highly specialized. These regulations deal with certain elections and other actions by taxpayers and are designed to inform the taxpayers how, when, and where to perform certain acts under the Code of 1954. More comprehensive rules on these points, and rules with respect to other acts, will be covered in subsequent regulations.

The commissioner states that priority is being given to the development of regulations relating to depreciation and corporate distributions and adjustments, in view of the widespread interest in these subjects. These and the other more important subjects may be covered before the end of this year.

**Social Security.**—The President on Sept. 1 approved the Social Security Amendments of 1954, which include the most extensive changes in this law since its adoption. Coverage under the old age and survivors insurance program has been extended to an additional ten million workers, now in practical effect becoming almost complete. Among those newly included are farm operators and employees and self-employed architects, accountants, and engineers. Remuneration subject to tax is increased from the former \$3,600 per year to \$4,200. Monthly benefit checks for some six million will be increased. Retired workers between the ages of 65 and 72 will be permitted to earn up to \$1,200 per year without loss of benefits, with no limitation on earnings for those of the age of 72 or over.

**Affiliated Corporations.**—A new election to file separate returns in lieu of consolidated returns has been authorized by Internal Revenue for affiliated corporations, with respect to the first taxable year for which returns are to be filed after the date of enactment of the new code and with respect to the first taxable year ending after the date of such enactment. In this regard returns due to be filed after the date of enactment of the new code (including any extensions of time allowed the taxpayer) will be considered as filed and the election exercised on such due date without regard to the actual previous filing date.

**Partial Refunds.**—In a recently published ruling, Internal Revenue has announced its policy with respect to partial allowance of refunds on over-assessments of income and excess profits taxes. Such refunds will be allowed where there has been agreement on a tax-reducing issue and a partial refund is deemed desirable from the government's standpoint. This action will save the government interest and will provide the taxpayer with the earlier use of the funds involved. Among limitations on application of the policy as set forth in the ruling is the statement that it does not apply to cases after docketing in the Tax Court.

**Stock Option.**—Where all the facts made it evident that a corporation had granted options to certain of its managerial employees to buy some of its corporate shares at less than fair market value for the purpose of affording such employees a proprietary interest in the business rather than further compensating them for their services, the Tax Court held that the exercise of the option did not result in income to the employees. This result was reached although the stock option did not qualify as a restricted plan within the code provision and the employer had withheld from the employees' wages to cover the difference between the option price and the fair market value of the shares. The options had not been requested

by the employees nor offered during any employment negotiations.

**Gift Tax.**—According to an Internal Revenue ruling, medical and hospital bills paid by a taxpayer for his adult son and living expenses advanced to the son's family, including monthly payments to meet the mortgage on the son's residence and automobile, for no consideration other than the taxpayer's love and affection, constitute gifts within the meaning of the gift tax law. Of course, the tax on any particular gift is dependent upon whether the taxpayer has exceeded in amount his annual exclusion of \$3,000 for gifts to each person and whether he has exhausted his lifetime gift tax exemption of \$30,000.

### Public Contracts

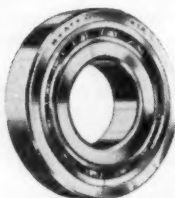
**Renegotiation.**—The Renegotiation Act of 1951 has been extended from its former expiration date of Dec. 31, 1953, for an additional year. This includes amounts received or accrued under renegotiable contracts or sub-contracts during 1954. However, the statutory minimum for renegotiation is increased from the former \$250,000 to a higher \$500,000 for fiscal years ending on or after June 30, 1953. Contractors having an aggregate renegotiable business of less than \$500,000 for such fiscal years need not file the "Standard Form of Contractor's Report" for such periods but may file merely the form "Statement of Non-Applicability of the Renegotiation Act of 1951, as amended."

**Federal Housing Administration.**—The Comptroller General has decided, on a resale by the Federal Housing Administration of property which it had acquired from an insured mortgagee after the latter's foreclosure of the property, that the excess proceeds are payable to the vendee who had not assumed the mortgage, rather than to the Veterans Administration, although the latter had paid its guarantee of a second mortgage also not assumed by the vendee. This result constituted a statutory gift of the excess proceeds, the Comptroller General felt, but was required by law.



Gas-Turbine-Powered Pump on Test at Navy Fire Fighting School

## Where Hyatts turn at 40,000 rpm!



Old in theory, gas turbines are comparatively new as a practical power source. So it was big news in engine development when Solar Aircraft Company, of California, announced the world's first portable, hand-started gas turbine power plant.

Developing 50 horsepower, the new lightweight operates at the high speed of 40,000 rpm—or twenty times the speed of most automobile engines! And that's where we come in.

To be sure of complete bearing dependability for such high-speed operation, Solar turned to Hyatt . . . and there's a Hyatt Hy-Load Roller Bearing at the most critical position on the turbine shaft.

Whether you're building locomotives or lawn mowers, and whether shafts turn at 4 or 40,000 rpm, you'll get better bearing performance from Hyatts!

# HYATT

STRAIGHT ☐

BARREL ☐

TAPER ☐

HYATT BEARINGS DIVISION • GENERAL MOTORS CORPORATION • HARRISON, NEW JERSEY

## ROLLER BEARINGS

## The Outlook for Construction

WHEN the members of the Governing and Advisory Boards of The Associated General Contractors of America assembled in St. Louis for their midyear meeting Sept. 27-29, they were able to contemplate the record of the construction industry for this year, as for other recent years, with a great deal of satisfaction. For construction has been maintaining a record-setting pace during 1954, while the general level of business activity has declined below last year's peak.

The board members could also take an optimistic view of the outlook for the industry in the months just ahead. For they had before them the results of a telegraphic survey conducted in early September by the A.G.C. among its 124 chapters and its national directors, which indicated that the present high level of construction would be sustained, or even increased, during the next six months.

There is ample reason for A.G.C. officials and members, and all segments of the construction industry, to be proud of the industry's performance and pleased at its prospects. This year the volume of construction is expected to reach a new all-time high, and if so, it will be the ninth successive year that the industry has set new volume records.

The 1953 record volume of more than \$50 billion, consisting of \$35.25 billion of new construction and approximately \$15 billion of maintenance and repair work, seems likely to be exceeded this year by 3 or 4 per cent. The indicated volume of new construction this year is \$36.5 billion or more, and maintenance and repair expenditures are estimated at more than \$15 billion. Thus the 1954 total will approach \$52 billion.

The continued rise of construction activity, while other segments of the economy were declining or leveling off, emphasizes the role of the industry both as a source of productivity and employment and as a major force for economic stabilization. In recent months it has been increasingly recognized by government officials, business leaders and economists that the construction industry has served as the main bulwark of the economy during this period of lessened activity.

The position of the industry in the economy is now at the highest point it has ever reached. A few years ago construction accounted for \$1 in every \$10 of the gross national product—the dollar value of all goods and services produced in the United States. Last year, when the gross national product reached the all-time high of \$364.9 billion and construction exceeded \$50 billion, the proportion was almost \$1 in every \$7. This year, with a prospective gross national product of about \$356 billion and a construction volume approaching \$52 billion, the industry will account for more than \$1 in every \$7.

The fact should not be overlooked, however, that the rise in the relative position of the construction industry this year is due partly to the increase in building activity, but also in considerable measure to the decline in general

business operations. Since construction activity depends on the development of needs for facilities, the continued growth of the industry must inevitably be geared in the long run to the expansion of general economic activity, the increase in population, and the development of more and more needs in a dynamic society.

On this score the industry may look to the future with confidence. The factors for continued expansion of the national economy are undoubtedly present. Population has been increasing at the highest rate in many years. Technological advancement has been tremendous. Needs for almost all kinds of goods, services and facilities are greater than ever before. Whatever temporary decline or leveling off there may be in general economic activity, we may be sure that the main trend will continue upward.

On another score the construction industry may view the outlook with confidence, and that is the circumstance that there are huge backlogs of construction needs which have accumulated over a long period of years. During the depression years of the 1930's construction did not keep up with the needs of a growing population. During the war years normal civilian construction needs could not be fully met because of scarcities of materials and manpower. There are many billions of dollars of accumulated construction needs—highways, schools, hospitals, water and sewerage facilities, industrial and commercial facilities, housing, and others—which must be met.

Thus the favorable outlook for construction is based on solid needs.

## The Master Builders

*(An editorial from The St. Louis Post-Dispatch)*

MR. CONSTRUCTION himself has been in St. Louis this week. He has been here in the person, so to speak, of The Associated General Contractors of America, assembled at the Chase Hotel.

The report that comes from 124 local chapters of the parent organization, representing 6,500 member firms, is a good one. In essence it is that an increase in building, highway construction and heavy engineering rather than decrease or slowdown is the rule. The prospect now is that construction in 1954 will surpass the record of more than \$50 billion in 1953. Already preliminary estimates place 1954 new construction, as distinguished from maintenance and repair, at more than \$36 billion as against some \$35 billion in 1953.

From this it is clear that construction has been a very great factor in sustaining the economy. Were other lines doing as well as construction there would be a real boom in the country instead of a period of slow decline. Conversely were it not for construction, economic conditions would be much worse than they are.

May the contractors go back to their home communities and build even more useful public works in 1955 than ever before!



here's

**PROOF**

# **GRIFFIN WELLPOINT YIELDS MOST WATER**

**United States Testing Company, Inc.**

HOBOKEN, N. J.  
TELEPHONE: HOBOKEN 3-3166

**REPORT**

**NUMBER**

**E-9687**

(Refer to this number)

**June 8, 1954**

ESTABLISHED 1880



**Client:** Griffin Wellpoint Corp.  
881 East 141st Street  
New York 54, New York

**Subject:** Comparative Flow Efficiency Test on five brands of Wellpoints

Following is a summary of the test we conducted comparing the performance efficiency of wellpoints manufactured by Griffin Wellpoint Corporation, with those of four competitive brands.

Our procedure was to pump water from a reservoir through each wellpoint into a calibrated tank. The rate of flow through the wellpoint determined the relative efficiency. Samples were furnished and identified by the client.

The results are tabulated below:

	Vacuum in.	Pump Speed RPM	Time Sec.	Volume Gallons 100	Gallons Per Min. 90.1
Griffin	25	1625	66.6	100	82.6
Wellpoint A	25	1663	72.5	100	82.6
Wellpoint B	25	1650	72.5	100	46.5
Wellpoint C	28	1700	129.0	100	40.5
Wellpoint D	28	1706	148.1	100	

From these results it may be concluded that the Griffin Wellpoint yields more water than the other brands tested.

**All 5 leading makes of self-jetting wellpoints included in this test. Full Report available for inspection, on request.**

Page 1 of 1

Supervised by

*Alan E. Surosky*  
**Alan E. Surosky**  
Manager, Engr. Div.

United States Testing Company, Inc.

by

*John Mooney*  
**John Mooney**

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C 11ARI-6-53-35

**GRIFFIN WELLPOINT CORP.**

**Dewatering and Soil Stabilization**

881 East 141st Street, New York 54, N. Y. • Jacksonville, Fla. • Hammond, Ind. • Houston, Tex.

» A CONTINUATION of the present record volume of construction during the next six months, with stable conditions prevailing in material prices and wages and increasing competition among contractors, is indicated by a national survey conducted in early September by The Associated General Contractors of America among its chapters and national directors.

Answers received from national directors and chapter officials throughout the country reflected general expectations that present levels of construction activity would be maintained or even increased in many sections of all three major categories of construction—building, highway and heavy engineering activities.

The inquiries on prospects in the industry for the next six months were directed to the 124 A.G.C. chapters throughout the United States and Alaska and the national directors of the association, representing approximately 6,500 member firms which annually perform more than 80 per cent of the nation's total contract construction and a large volume of work abroad. The findings of the survey were considered by the Governing and Advisory Boards of the A.G.C. at their midyear meeting in St. Louis Sept. 27-29.

Replies were received from a great majority of chapters and national directors, and the predominant tone was one of optimism over the prospects of the construction industry for the coming six months. This optimism was supported by factual data concerning the factors involved in the survey.

#### Continued Rise Foreseen

With respect to each category of construction, the greatest proportion of the replies forecast a continued rising trend, and the next greatest percentage in each instance expressed the belief that the present high levels of activity would be maintained. Only a relatively small percentage of the answers in each category indicated expectations of a downward trend in the next six months.

The predominance of optimistic replies was fairly uniform by geographical sections. In some local areas, however, expectations varied, evidently because of local conditions, which accounted largely for the minority of answers anticipating a reduced volume of construction.

A tabulation of replies on the con-

#### A.G.C. Survey Discloses:

## Construction to Continue at Peak, Competition to Grow More Intense

- Stability to Prevail in Material Prices and Wages
- Outlook for Next Six Months Generally Optimistic

struction outlook by categories shows the following results:

<i>Building</i>	
Increase .....	43%
No change .....	37%
Decrease .....	20%
<i>Highway</i>	
Increase .....	59%
No change .....	26%
Decrease .....	15%
<i>Heavy</i>	
Increase .....	42%
No change .....	34%
Decrease .....	24%

Thus the outlook for increasing activity appeared strongest in highway construction, with the prospects for building and heavy about the same.

#### A New Record Year

The confident outlook in the industry is all the more significant in view of the fact that it follows a long period of rising construction activity. The 1953 volume set an all-time high record of more than \$50 billion of construction put in place, including \$35.25 billion of new construction and approximately \$15 billion of maintenance and repair expenditures.

Despite a forecast last fall, based on estimates of the Departments of Labor and Commerce, that new construction in 1954 would be about 2 per cent less than in 1953, this year has seen the volume of construction so far rising steadily to new record levels. The seasonally adjusted annual rate of new construction for the first eight months of 1954, according to preliminary estimates by the Departments of Labor and Commerce, is in excess of \$36.5 billion, compared with actual expenditures of \$35.25 billion for new construction in all of 1953. The indicated increase over last year is about 3.5 per cent.

#### \$1 in Every \$7 for Construction

On the basis of the estimated seasonally adjusted annual rate of new construction for the first eight months of this year, \$36.5 billion, and the expectation that maintenance and repair expenditures will exceed \$15 billion,

the total volume for 1954 will approach \$52 billion, the highest of all time.

Construction, as the largest single production activity in the nation's economy, accounted for nearly \$1 in every \$7 for the gross national product of \$364.9 billion last year. Indications are that this year a little more than \$1 in every \$7 of the gross national product—the dollar value of all goods and services—will represent construction.

The gross national product this year will be less than that for 1953, while the volume of construction is higher. The Department of Commerce has estimated that the gross national product was running at a seasonally adjusted annual rate of \$355.8 billion in the first quarter of 1954 and \$356 billion in the second quarter.

It has been widely recognized by economists, government officials and business men that the continuing record volume of construction this year has provided the biggest mainstay of the national economy, which has been operating at an over-all level below the all-time peak of 1953, but still above 1952, the previous highest year.

#### Private Construction Rises

The increase in the volume of construction this year has been due principally to higher private expenditures. During the first eight months of the year private construction was 5 per cent greater than in the corresponding period of 1953.

Public expenditures for new construction were about the same in the January-August period this year as in 1953. While construction expenditures by the federal government declined this year, particularly for military facilities, larger outlays by state and local governments offset the loss. The increases in state and local expenditures were mainly for construction of schools, highways and sewer and water systems.

One of the major reasons for the sustained high volume of construction

activity this year, while business in general was dipping, and for expectations of a continuing high level during the next six months, as shown by the A.G.C. survey, consists of the big backlogs of construction needs which have accumulated over a period of years. This accumulation of backlogs was due primarily to the fact that so much construction activity during World War II and the national mobilization period following the outbreak of the Korean war in 1950 was necessarily devoted to military and other defense requirements with consequent scarcities of materials and manpower for other construction.

With the tapering off of federal expenditures for military and other defense construction this year, and greater availability of materials and manpower, construction activities of a private nature and by state and local governments have risen.

There remain huge backlogs of construction needs, particularly for community purposes, such as highways, schools, water and sewerage facilities, and hospitals. President Eisenhower summarized these backlogs in his Economic Report to the Congress last January, saying that in order to catch up, expenditures of \$8 billion annually for the next 10 years would be needed for highways, \$6.75 billion annually for the next 10 years for schools, \$1.8 billion annually for the next five years for water and sewerage facilities, and \$1.5 billion annually for the next 10 years for hospitals.

#### Building Conditions Favorable

Another major reason for continuing high levels of construction is the relative stability of construction costs and materials supply. Still another important factor is the increasing competition among contractors, plus the industry's expanded capacity.

All these factors were cited as favorable auguries in responses to the A.G.C. survey. A great majority of replies forecast no change in the next six months in material prices, and a substantial majority expected no change in wage rates.

A tabulation of answers on material prices and wage rates shows:

Material prices	
Increase .....	15%
No change .....	75%
Decrease .....	10%
Wage rates	
Increase .....	39%
No change .....	60%
Decrease .....	1%

With respect to wage rates, many replies explained that present labor contracts would remain in effect beyond the six-month period involved in the survey.

#### Competition Grows Keener

The greatest degree of unanimity in responses in the survey was on the expectation of increased competition among contractors. Approximately nine replies in every 10 foresaw keener competition, "if possible," as some said, in an industry where highly competitive conditions are characteristic.

A tabulation of replies on anticipated competition shows the following results:

Competition among Contractors	
Increase .....	89%
No change .....	9%
Decrease .....	2%

The terms used most frequently in the replies in describing competition are "extremely intense" and "rough." Some respondents said the competition was the keenest they had experienced since before World War II, and others said it was the most intense competition they had ever seen.

Several reasons were given for the increasing competition, including the following: (1) Increased capacity of contractors, due partly to improved equipment; (2) a larger number of contractors in the area; (3) efforts by newer contractors, especially, to meet expenses of equipment and maintain organizations by seeking work at "dangerously low" bids; (4) extremely favorable weather for construction, especially in some sections, which enabled contractors to finish jobs ahead of time and seek more work; (5) entry of out-of-state contractors into construction markets; (6) "too many contractors."

Some replies said the competition was so intense that many contracts were being taken at cost or below. There were many warnings that profits were going out of the contracting business, and that the law of the "survival of the fittest" would make itself felt.

#### Conditions in Different Areas

The seemingly paradoxical situation of a record volume of construction work and increasingly sharp competition was perhaps best explained by one observation: "There is plenty of work but also plenty of contractors."

Construction conditions in different sections of the country as disclosed by

the survey may be summarized as follows:

**New England**—In some states work is slacking off, but on the whole the high trend is continuing. There is much school construction now and in prospect, and also hospitals. Highway construction will increase. In some places even factory building is higher than it was a year ago.

**Middle Atlantic**—Highway and heavy construction both expected to increase in some states, and building will remain unchanged, or will gain, in general. Conditions differ in different states. In New York and Pennsylvania, for example, more highway work is anticipated, largely because of turnpike developments, while in New Jersey highway construction may fall off due to completion of the New Jersey Turnpike and Garden State Parkway. One Middle Atlantic area reports construction relatively depressed due to excess of activity in prior years which cleaned up some of the backlog.

**South**—In many states in this section, as in some others, the construction outlook is good due to movement of new industries into the region, population growth, and consequent needs for more schools, highways, etc. Coal-mining areas are depressed and construction is affected locally.

**Southwest**—More work reported coming on the market in general, and especially in highway construction. Prospects for building vary from one locality to another, but on the whole present activity will be maintained or increased. Heavy construction expected to be up in some areas, but not in others.

**Middle West**—Many states in this big region have had exceptionally favorable weather for construction. Prospects for highway work are particularly good, partly because of turnpike construction. In general, outlook for all types of construction is good.

**Rocky Mountain States**—In most areas building and highway work will hold steady or increase, and more heavy construction is expected in some states.

**Far West**—Highway construction is expected to rise generally. In some fast-growing areas building will increase substantially. Heavy construction will be up in some places, will level off in others.



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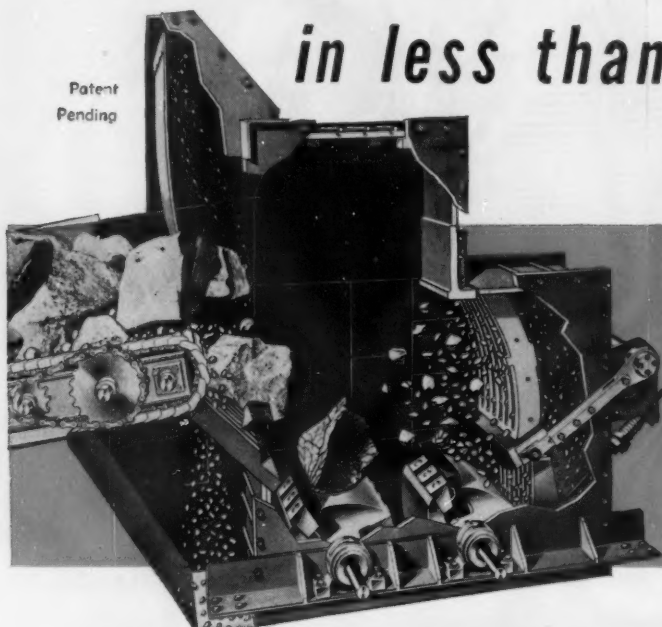
*1,000-hour lubrication intervals* for truck wheels, idlers, and support rollers saves time, cuts labor cost . . . *unit construction* for easy servicing, because box A-type main frame makes major assemblies readily accessible for inspection, adjustment, and servicing . . . *operator comfort* second to none, with convenient controls, full vision, easy steering, and simplified shifting.

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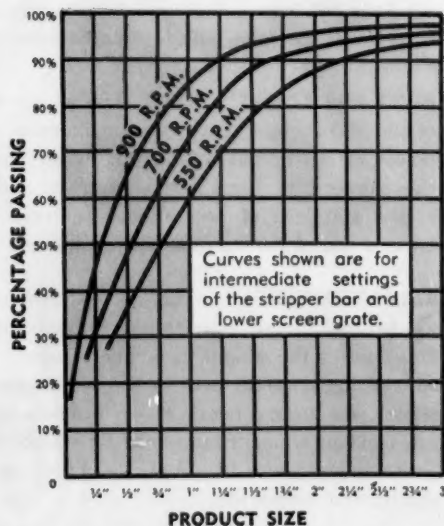
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» THE MIDYEAR meeting of the Governing and Advisory Boards of The Associated General Contractors of America in St. Louis Sept. 27-29 was featured by hard-working sessions and committee meetings in which significant problems facing the industry were considered and acted upon, including labor policy, subcontractor relations, and the peculiar market conditions existing in construction today.

It was largest board conclave in A.G.C. history, with more than 400 in attendance representing most of the association's chapters and branches throughout the country.

Specific actions taken by the boards included:

- Adoption of a positive policy on labor legislation which opposes any weakening of existing legislation with respect to the construction industry and calls for positive handling of aggravated jurisdictional disputes by the National Labor Relations Board. (Text on page 30.)

- A recommendation for more orderly programs of heavy public works projects, with appropriations adequate to avoid disruption of the heavy construction industry, whose activity in developing national resources is a major factor in national defense, employment, and the entire economy.

- A strong recommendation for establishment of local programs between general contractors and subcontractors in the proper handling of bids for subcontractors, and a statement of the need for subcontractors to accept their fair share of responsibility for their own ethical actions in maintaining fair and bona fide competition.

- A recommendation to government agencies that no bid be read or considered unless accompanied by the specified bid security.

- Tentative approval of a revision, clarification and simplification of the A.G.C. governing provisions, which are subject to final action by the 36th annual convention in New Orleans next March.

Many specific problems were discussed and acted upon by the three occupational divisions (see story on page 31) and the various committees.

The final highlight of the meeting was the nomination of George C. Koss, Koss Construction Co., Des Moines, Iowa, for president in 1955, succeeding John MacLeod, Paramount, Calif.; and of Frank J. Rooney, Frank J. Rooney, Inc., Miami, Fla., for vice president next year, succeeding Mr. Koss.

## Largest Meeting of A.G.C. Boards Takes Action on Industry Problems

- Positive Policy on Labor Legislation Adopted
- Koss Named for President, Rooney for Vice President

### Industry Responsibility Heavy

Consciousness of the increasing weight of public responsibility that must be assumed by general contractors and the association was an undertone throughout the sessions. This tenor was expressed in the opening remarks of President MacLeod, who stated, in part:

"Of all the basic industries, construction alone has been rising, while business in most other lines has been leveling off or declining. It is very significant that construction now represents more than one dollar out of every seven dollars spent in this country for all goods and services, and is responsible for the employment of more than 15 per cent of all full-time equivalent employees.

"The increasing importance of the construction industry to the welfare of the nation has placed increasing responsibilities upon general contractors, individually and collectively, in carrying out the functions of the industry in a manner that the public may best be served."

He said he was "impressed with the load of work that has been necessary on the part of the officers, committees, chapters and branches, and the national staff in carrying out the work of the association."

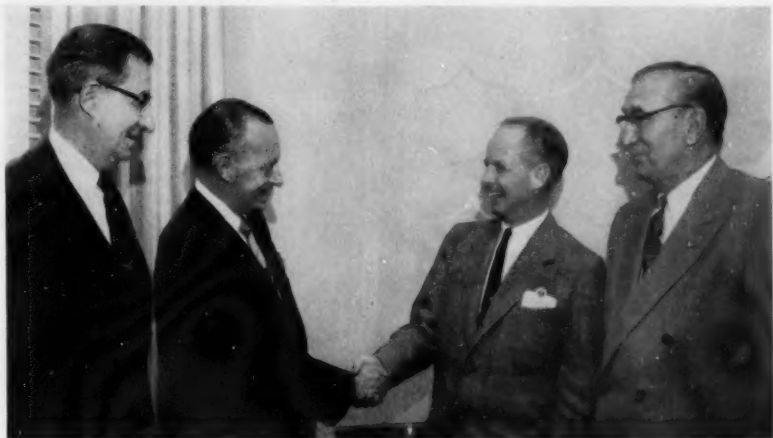
Managing Director H. E. Foreman, in presenting his report to the boards (full text begins on page 59), reviewed accomplishments of the association, adding that in carrying out its work the A.G.C. has regarded the interests of the public foremost in any of its actions. He reported the association in good financial condition, and membership on the upgrade.

Executive Director James D. Marshall explained the organization and operations of the national staff which are designed to most effectively serve the membership. He said the association's hard-working committees "have been more active and done more effective work during the last six months than at any time in the past."

### Committee Reports

**Labor Committee**—The policy statement on labor legislation was recommended after committee meetings at which Chairman Arthur H. Wells, Chicago, presided. The committee discussed the general labor situation, Vice Chairman Lester C. Rogers, Chicago, reported to the Boards.

As recommended by the committee, the boards also endorsed a statement of policy by the American Society of Civil Engineers pertaining to the unionization of professional engineers.



A.G.C. officials at the Midyear Board meeting in St. Louis are (left to right): H. E. Foreman, Managing Director; Frank J. Rooney, Frank J. Rooney, Inc., Miami, Fla., nominated as vice president for 1955; George C. Koss, Koss Construction Co., Des Moines, Iowa, current vice president and nominated for president in 1955; and John MacLeod, Maceo Corp., Paramount, Calif., President.



**Specifications**—More beneficial work has been accomplished this year by the 10 A.G.C. task units on specifications than during any other previous period, George C. Looz, Oakland, Calif., chairman of the Coordinating Committee of the Contract Forms and Specifications Committee, reported to the boards. He called for more members to volunteer to participate in the varied activities of the task units.

This committee originated the resolution adopted by the meeting recommending to the government agencies that, "in order to protect the competitive bidding system, no bid be read unless the specified bid security has been furnished by the bidder with his bid; and, if such security has not been furnished, that his bid be returned to him without further consideration."

The committee discussed specifications problems that have arisen on work with the Atomic Energy Commission, the Air Force, and the St. Lawrence seaway and power projects.

**Membership**—W. Murray Werner, Shreveport, La., chairman of the Membership Committee, reported membership at a peak of 6,514 as of Sept. 27, and cited areas in several states that indicate prospects for membership expansion programs.

Three new chapters were reported formed during the year—the Florida Gulf Coast, Central Florida, and Tallahassee Chapters—and one was reported dropped.

**Legislation**—A review of major legislation considered by the 83rd Congress which affects construction was presented by R. A. Smith, Los Angeles, chairman of the Legislative Com-

mittee, with particular emphasis on the enactment of legislation permitting judicial review of disputes arising under government contracts, which the A.G.C. supported, and on the defeat of proposals to regulate bidding and awarding procedures for subcontracts on federal projects, which the association opposed.

Mr. Smith praised the work of the officers, members, chapter secretaries, and the national staff in making the association's views known regarding important legislation.

**Subcontractor Relations**—Recommendations of the Subcontractor Relations Committee which were adopted by the boards were that chapters be "strongly urged" to (1) hold membership meetings promptly to decide what steps can be taken in the area to solve the problem most effectively; (2) appoint committees authorized to offer to meet with local subcontractors organizations to work out mutually satisfactory bidding and awarding procedures; (3) take prompt actions on such complaints as may arise when appropriate programs are put into effect; and (4) report results of their activities to the national association.

The committee report, presented by Chairman Earle J. Wheeler, Cincinnati, Ohio, stated that, because conditions vary greatly between the various communities throughout the country, "this subject of the handling of bids for subcontracts in an ethical manner by both general contractors and subcontractors can be settled most effectively on a local level with procedures adapted to local conditions."

"The committee also believes very strongly that while general contrac-

tors should take the lead in working for ethical procedures, this problem cannot be solved without the cooperation of subcontractors, without their taking responsibility for their own ethical actions for maintaining fair and bona fide competition.

"It is certainly obvious that the efforts to conduct the bidding and award of subcontracts in an ethical manner must be a two-way street with the subcontractors taking their fair share of responsibility."

With reference to the invitation to bid forms for subcontracts recently issued by the association, the committee expressed its belief that "it is the general opinion of A.G.C. members that the development of these forms has been a forward step toward the improvement of relationships with subcontractors and improvement in the handling of bids for subcontracts."

**Public Relations**—A review of progress made in the association's coordinated public relations program, which was started in 1947, was made in the Public Relations Committee meeting, at which Vice Chairman Mark K. Wilson, Jr., Chattanooga, Tenn., presided. A restudy of the program's objectives was authorized, and the committee commended the association's activities in publishing *THE CONSTRUCTOR*, the *National News-Letter*, and conducting a small advertising program.

The committee also discussed with chapter managers the means by which the national office could be of greater assistance to them in adopting or expanding public relations programs, discussed the opportunities for developing high school educational programs and the problems involved, and recommended study by the Education Committee of the possibilities of providing information to high school students on opportunities in construction, and a restudy of the desirability of reactivating the A.G.C. student chapter program in engineering schools.

The report was presented by Past President C. P. Street, Charlotte, N. C.

**Education Committee**—The new Education Committee, meeting for the first time, explored educational possibilities in many fields and reviewed pertinent A.G.C. activities in this direction, Chairman Dwight W. Winkelman, Syracuse, N. Y., reported.

Among its conclusions were that: (1) the A.G.C. should continue to support the student chapter program of the American Society of Civil Engineers; (2) construction courses of engineering colleges should supplement,



Executive Director James D. Marshall, Frank J. Rooney, nominee for vice president in 1955, and Assistant Executive Director Charles S. Embrey talk over results of the A.G.C. Board Meeting.

and not replace the basic civil engineering courses; (3) the A.G.C. program calling for summer employment of student engineers should be continued, and possibly include instructors and professors; (4) the national staff study ways and means of disseminating material describing the opportunities in the construction industry; and (5) chapters should consider the establishment of education committees. The educational program of the Michigan Road Builders Association, A.G.C., was commended to other highway chapters for consideration.

**Governing Provisions**—M. W. Watson, Topeka, Kans., chairman of the Governing Provisions Committee, described steps taken in editing, rearranging and reissuing the A.G.C. Governing Provisions. The boards commended the work of this committee, the Executive Committee, and Managing Director Foreman, assisted by other members of the national staff, in preparing the document. The Governing Provisions were approved and put into effect subject to review by the next convention.

**Apprenticeship**—The Apprenticeship Committee, of which Hal S. Crain, Durham, N. C., is chairman, recommended study of the feasibility of developing uniform related instruction courses for classroom training, and of cooperating with other industry organizations in developing text books for carpentry training; urged improved procedures in governmental statistics on apprentices; and stressed the need for continuous active contractor participation in apprenticeship programs. The report was presented by Ira McK. Koger, Jacksonville, Fla.

**Accident Prevention**—The effectiveness of the association's accident prevention work continues to increase, Committee Chairman H. B. Alexander, Harrisburg, Penna., reported.

During the year the committee was increased to include two members from each of the twelve association districts. Also a committee has been formed in each of the districts with one of the committee members as chairman, an A.G.C. chapter manager as secretary, and two representatives of the casualty insurers. These committees provide assistance to members and chapters.

This year the A.G.C. will receive the National Safety Council's Association Safety Award. The A.G.C. also was commended by the Corps of Engineers for assisting in its best accident experience in history in 1953.

### Secretaries' Council

The Secretaries' and Managers' Council had a large attendance at its day-long meeting preceding the board meeting, at which problems of chapter management were considered, and exchanges of information were made concerning conditions in various parts of the country.

A.G.C. President MacLeod thanked the executives for their support in carrying out the A.G.C. program, and assured them that the officers, committees and national staff were doing everything possible to find the best solutions of chapter problems in the interest of all chapters and members. The council also was greeted by Vice President Koss, Managing Director Foreman, and Executive Director James D. Marshall.

Council Chairman A. H. Harding, Portland, Ore., reported acceptance of an invitation from O. W. Crowley, manager of the A.G.C. of Iowa, to hold the next A.G.C. Executives' con-

ference in Des Moines, June 6 and 7, 1955.

Separate meetings were held by the building chapter managers, with William C. Bowden, Pittsburgh, as chairman, and by the heavy and highway chapters, with W. D. Shaw, Los Angeles, as chairman, to discuss particular problems in their types of work.

### Future Meetings

The 1955 annual convention will be held in New Orleans March 14-17; the 1955 midyear board meeting at Minneapolis, Sept. 26-28; and the 1956 annual convention at New York City, Feb. 13-16.

The boards also voted to accept the invitation of the Wisconsin Chapter to hold the 1956 midyear board meeting at Milwaukee, Sept. 17-19.

Directors and chapter officers representing the hosts delivered addresses of welcome to the 36th annual convention in New Orleans, and to the next board meeting in Minneapolis.

## Host Committee Arrangements Praised

» A.G.C. representatives mixed business with pleasure as they attended the midyear meeting of the Governing and Advisory Boards in St. Louis.

Agreement was unanimous that in addition to being the largest board meeting in A.G.C. history, it was also one of the best arranged from entertainment standpoint. When A.G.C. officials were not attending business sessions they were enjoying the functions scheduled by the Host Chapters' Committee.

An evening social program, following a day crowded with meetings, Sunday, Sept. 26, started things off, with a reception and a buffet supper served on the Starlight Roof of the Chase Hotel.

The following afternoon the ladies luncheon was held at the famed Harbor Point Yacht Club. This proved an outstanding success with many of the guests taking advantage of a ride up the Mississippi in a river boat.

On Tuesday afternoon the men's



Golfing awards were presented to winners by Past President C. P. Street, Charlotte, N. C., who is handing the Adolph Teichert, Jr., Award to J. V. Quinn, Los Angeles. Ray Van Buskirk, Hawarden, Iowa, won the trophy donated by the Host Chapters for the low gross, and W. D. Shaw, Los Angeles, right, was runnerup.

golf tournament was held at the Norwood Country Club where the A.G.C. representatives competed for the perpetual Adolph Teichert, Jr. Golf Trophy and other prizes. Winners are shown in picture on page 29. The trophy was donated by the late Mr. Teichert, 30th president of the A.G.C., and was first presented at the 1952 midyear board meeting at White Sulphur Springs, West Virginia.

Many who were not so athletically inclined accepted an invitation to tour that world-famous brewing establishment of Anheuser-Busch, Inc.

Aside from the scheduled events, many A.G.C. visitors took advantage of St. Louis' excellent restaurants, theatres, horse racing, night clubs, and other points of interest.

Host chapters for the meeting were the A.G.C. of St. Louis, the A.G.C.

of Missouri, the Kansas City Chapter and the Southern Illinois Builders Association.

#### **Host Chapters' Committee**

George H. Murch was general chairman of the Host Chapters' Committee, assisted by the following: Robert W. Murch, chairman of the reception and buffet subcommittee; Charles Harrison and William Willingham, co-chairmen of the golf tournament; John P. Soult, chairman of the ladies entertainment activities; Henry C. Schenler, chairman of the transportation subcommittee; Gabriel J. Alberici and Joseph E. Latta, co-chairmen of both reservation and registration, and finance subcommittees; and W. W. Hutton, Carl Lomax, Robert W. Long, J. George Robinson, and Walter Skrainka.

## **George C. Koss Nominated for President, Frank J. Rooney for Vice President, in 1955**

**George C. Koss**, vice president of the A.G.C., was nominated for president in 1955 by the Governing and Advisory Boards at their mid-year meeting in St. Louis.

Mr. Koss is president of the Koss Construction Company, Des Moines, Iowa, which engages in highway and airport construction and is one of the largest concrete paving firms in the country. During World War II the company built a number of major air bases in the Midwest.

A graduate of Philips Exeter Academy and Harvard, Mr. Koss joined the family firm in 1929, became vice president in 1931, executive vice president in 1941, and president in 1947. For outstanding work in civic affairs he received *The Des Moines Tribune's* award as the city's "most public-spirited citizen of 1952."

Long active in A.G.C. affairs, Mr. Koss has served as chairman of the Public Relations Committee, a member of the Executive Committee, national director, chairman of the Highway Contractors' Division, and on various other committees.

**Frank J. Rooney**, nominated for vice president in 1955, is president of Frank J. Rooney, Inc., Miami, Fla., which he established in 1935. A prominent building contractor, his firm built airport terminals and barracks during the war and has engaged extensively in the construction of hotels,



**Mr. Koss (left) and Mr. Rooney**

stores and office buildings in Miami and Southern Florida.

Mr. Rooney is a member of the A.G.C. Executive Committee, a national director, and chairman of the Building Contractors' Division, among other posts.

Born in New York State, he was educated at St. Francis' College, Brooklyn.

The nominees chosen at the board meeting will be voted on by the membership of the A.G.C. in mail ballots in December, and the newly elected officers will be installed at the concluding session of the 36th annual convention in New Orleans March 14-17.

#### **Labor Legislation Policy**

Text of the policy statement on labor legislation adopted by the A.G.C. boards at St. Louis:

"The Associated General Contractors of America at the 1954 mid-year meeting in St. Louis, Missouri, expressed support of certain labor legislation and of strict enforcement thereof, namely—

"1. The secondary boycott provisions under the Labor-Management Relations Act of 1947 should not be weakened or relaxed in any respect in the construction industry. Mandatory injunction proceedings in cases of secondary boycott should be retained.

"2. Although the A.G.C. gives continuing support to the National Joint Board for the Settlement of Jurisdictional Disputes, nevertheless provision should be made for immediate handling of those cases where orders, decisions and procedures of this Board are defied. Jurisdictional disputes are indefensible and should be given priority position before the National Labor Relations Board, and the injunction provisions relative thereto should be mandatory rather than discretionary.

"3. The A.G.C. at the 30th Annual Convention in 1949, recommended that the rights of states to enact labor legislation be not infringed upon. Again, at the 34th Annual Convention in 1953, the A.G.C. expressed opposition to any federal law which would impair or supersede labor legislation by the several states.

"The A.G.C. again emphasizes the position taken at these two conventions and deplores uncertainties resulting from the recent action of the United States Supreme Court in contravention of the principle of States Rights.

"4. The 30-day union shop provision of the Labor-Management Relations Act of 1947 should be supported and maintained, in opposition to any reduction in the waiting period."

(The "recent action of the U. S. Supreme Court" mentioned refers to the *Garner* case (July *CONSTRUCTOR*) which has the effect of preventing state courts from handling certain labor disputes covered by the Taft-Hartley Act.)



## NATIONAL ASSOCIATION

### Many Subjects Discussed by Division Roundtables

» INFORMAL roundtable discussions were held at the A.G.C. Board Meeting by the Building, Highway, and Heavy Construction and Railroad Contractors' Divisions on matters of particular interest to the respective groups.

The aim of the sessions was to provide the maximum opportunity for all members present to discuss subjects they wanted to talk about.

**Building contractors.** The discussion opened with comments on the extremely keen competition which prevails in bidding. Many companies reported re-evaluation of office and field operations, and development of new methods for increased efficiency.

Chairman Frank J. Rooney, Miami, Fla., reported the feeling of members that the industry is in a period of market readjustment. The group suggested that the A.G.C. Joint Co-operative Committee with the Surety Association of America give study to bonding practices.

Much discussion developed on use of the new subcontractor invitation to bid form, and recommendations were made to the Subcontractor Relationships Committee for more study.

Increased interest in apprentice training was reported and suggestions were made to the Apprentice Training Committee for means to stimulate training of sufficient new men to meet the demands. Means of improving safety measures and the A.G.C. accident prevention program were discussed.

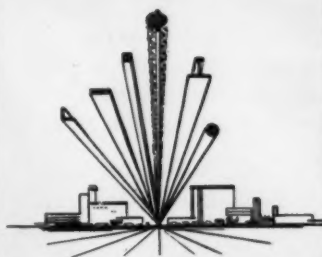
The responsibility for checking shop drawings was discussed and the recommendation was made that the Joint Co-operative Committee with the American Institute of Architects give further study. J. W. Cawdrey, Seattle, is division vice chairman.

**Highway Contractors.** A spot check of conditions in various areas by members disclosed that highway construction is continuing at a high rate and that competition is very keen.

Much discussion centered around the President's proposal for a \$50 billion ten-year highway construction program. Most of those present voiced the opinion that the industry can take the increased program in stride and handle any increases that might develop. Some doubts were expressed of the availability of some materials in some areas.

(Continued on page 32)

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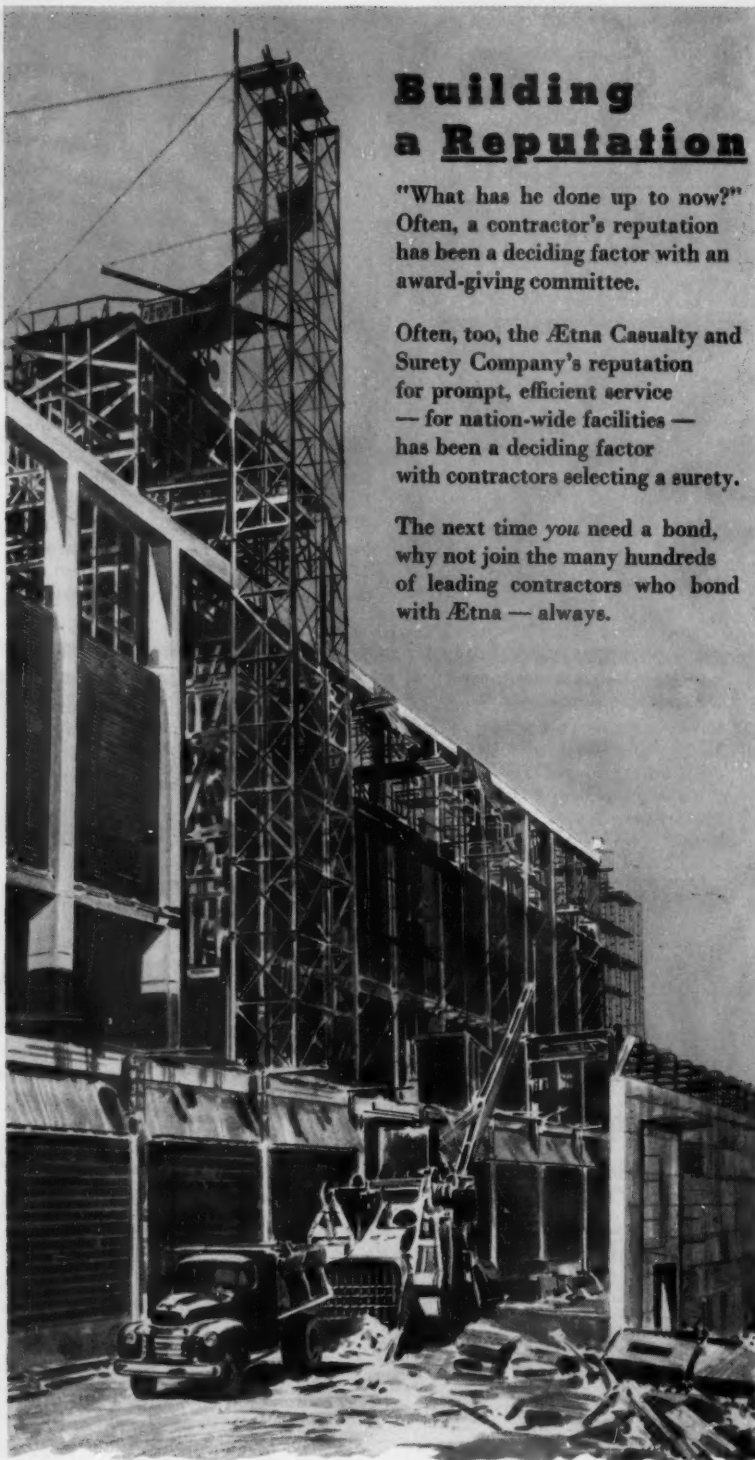
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Surety Company's reputation  
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## NATIONAL ASSOCIATION

(Continued from page 31)

The need for greater numbers of young engineers in the industry and highway departments was discussed. It was noted that a number of chapters had taken steps toward relieving the shortage in their areas, and others were urged to do so.

Policies of the Chamber of Commerce of the United States on highways were discussed, and Past President M. W. Watson, Topeka, Kansas, was commended for the work he is doing as a director.

Work done with the American Association of State Highway Officials, National Association of State Aviation Officials, REA, and other groups was discussed.

Chairman M. Clare Miller, McPherson, Kans., presided and made the report.

### Heavy Construction Contractors.

A serious decline in volume threatens the heavy construction segment of the industry, members stated in their discussions.

A recommendation to Congress was suggested in the discussions and adopted by the Boards urgently requesting that "Congress make adequate appropriations so that a sufficient number of new starts on major public works projects designed to develop our national resources be made in each succeeding year."

The recommendation pointed out that federal awards for this type of work had declined 30% this year, that most awards were for continuations and not for new starts, and that many other industries as well as construction would suffer from these declines. The statement also pointed out that continued declines would hamper the orderly program of public works construction, would curtail employment, would handicap this part of the industry in expanding rapidly when necessary, and would tend to upset the economy.

Reports were given on committee actions taken on contract forms and specifications of particular interest to the group. Following a discussion of the disruptive effect on the industry of TVA construction operations, a motion was adopted recommending appointment of a committee to meet with TVA.

Chairman A. S. Macdonald, Tacoma, Wash., presided at the meeting. The report was presented by J. A. Henderson, Winona, Minn., vice chairman.



# Carving out the West Virginia Turnpike

**INTERNATIONAL PAYSCRAPERS and crawlers help contractors carve 88 mile roadway through mountainous terrain.**

With the opening of the new West Virginia Turnpike, travel distance between Charleston and Princeton shrinks from 110 to 88 miles, a 20% reduction in mileage over a two-lane road that makes driving through the mountains faster and far safer.

While not as long as some of the other new Turnpikes, this \$96,000,000 road-building venture was a rugged test for contractors from the outset with original estimates of 25,000,000 cubic yards of earthmoving increased by mountain slides that required moving more than 500,000 yards of dirt for each mile of highway built in many locations.

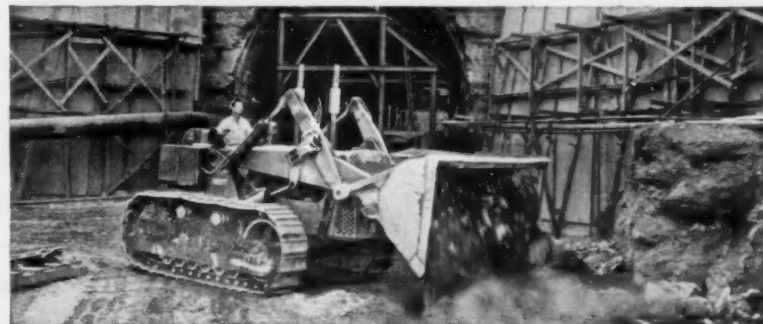
This mountainous setting provided contractors with more concrete evidence that INTERNATIONAL tractors—both rubber-tired and crawler—really pay off big when the chips are down . . . when greater power, payload moving capacity and maneuverability are needed in the tight spots.

It takes just 10 seconds to get the low-down on International's greater earthmoving earning power. Simply call your International Industrial Distributor today and he'll demonstrate any of the great INTERNATIONAL tractors with matched equipment right on your job tomorrow.

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**A MOUNTAIN SLIDE** nearly doubled the excavation work of the L. S. Coleman Company, St. Albans, West Virginia, in Kanawha County, but two INTERNATIONAL TD-24s and two INTERNATIONAL 2T-75s helped remove the slide in short order.



**TITAN IN A TUNNEL.** Bates and Rogers Construction Corp., Chicago, find the INTERNATIONAL TD-18A crawler and 3 cu. yd. DROTT Skid-Shovel a great all-around performer in constructing half-mile tunnel between Standard and Fairfield, West Virginia.



**LATROBE LIKES 'EM.** "We put our 3 TD-24s on the tough jobs because of the extra power and speed, their all-around efficiency and stamina," says John Sobotta, grade foreman for Latrobe Road Construction Co., Latrobe, Penn., contractors on 3,000,000 cubic yards of excavation and embankment in Raleigh County.



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## South's Construction Apprentices on Increase

» THE NUMBER of apprentices in the construction and metalworking industries of the South are on the increase, W. F. Patterson, director of the Bureau of Apprenticeship, told the sixth annual Southern States Apprenticeship Conference in Atlanta, Sept. 11.

"Although there has been a slight decrease in the total number of apprentices employed in all industries and trades in this area (the South), the number in training in the construction industry, as well as in the metalworking industry, has actually increased slightly.

"There were more than 20,440 apprentices in training here in those industries in April of this year, compared with 19,760 in April 1953. In addition to the fairly large number of apprentices employed during the year, there has also been a slight increase in the number who completed their training and have been added to the ranks of skilled manpower.

"Although the figures I have given do not show much gain, the Southern states made a better showing during the year than the nation as a whole."

In these states below the Mason-

Dixon Line the construction industry has some of the largest and "most progressive" apprentice training programs in the country, he added. Many of the programs are directed by local contractor-labor apprenticeship committees, he added. Among the largest area-wide training programs are those at the Atomic Energy Commission's Oak Ridge and Savannah River Projects and on construction jobs for the Tennessee Valley Authority.

Besides encouraging the training of apprentices, the bureau is working for a program among industries to improve the skill of all employees. Some of these "skill-improvement" programs are directed at overcoming deficiencies in workers and toward keeping journeymen abreast of new methods, Mr. Patterson said.

In the years ahead the future of apprentices is bright. The construction industry is expanding and the current rate of industrial workers "compares favorably" with the number employed during boom years, he added.

"We must keep pace with this upward swing by meeting the manpower training needs. There have never, at any time, been sufficient skilled workers to meet industry's needs," he concluded.

## Mitchell Seeks 'to Sell' Congress Apprenticeship

Labor Secretary James P. Mitchell last month called for a widespread program to "sell" apprenticeship to Congress.

Addressing a meeting of the A.F.L.'s Building and Construction Trades Department in Los Angeles, Sept. 17, Mr. Mitchell said that this year Congress cut the Bureau of Apprenticeship budget from the \$3,215,000 requested to \$3,100,000.

The result of current and past Congressional cuts has been a constant reduction in the bureau's work force for the past four years. Even so, the bureau is still approximately the size it was from 1947 to 1950, he added.

Regardless of the "political complexion" of the next Congress, he continued, "we will have another battle on the subject of the apprenticeship program. Neither you in the building trades nor we in the Department of Labor have adequately sold apprenticeship to Congress.

"In the months to come we must sell the Congress on the value of apprenticeship and the contribution the federal government can make in promoting it."

The secretary also called for more action on the state level to promote apprenticeship.

## Apprenticeship Councilmen

A.G.C. chapters are often represented in various state apprenticeship councils. Their active participation contributes an effective support to the efficiency of these councils. The following A.G.C. members have been appointed recently:

John Rommel, George H. Rommel Co.; and Frank Owens, F. W. Owens Co.; both of Louisville, Ky., to the Kentucky State Apprenticeship Council.

Alvah M. Libbey, Libbey and Libby Co., Minneapolis, Minn., member of the Minnesota State Apprenticeship Council.

R. I. Riedesel, Riedesel Construction Co., Billings, Mont., a member of the Montana State Apprenticeship Council.

William J. Salter, Stewart & Williams, Inc., Augusta, Me., with the Maine State Apprenticeship Council.

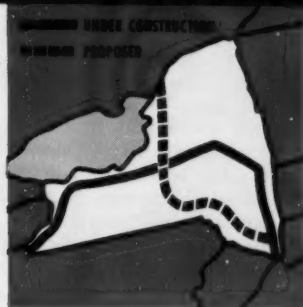
Raymond Griggs, Building contractors of Clovis, N. Mex., and Alva J. Coates, Manager, New Mexico Building Branch, A.G.C., named to the New Mexico State Apprenticeship Council.

## Carolina Builder Turns Shop into Classroom



John J. Styers, left, an instructor, teaches blueprint reading to a class of carpenter apprentices in the shop of D. Glenn Stroup, A.G.C. building contractor of Gastonia, N. C. Mr. Stroup, apprenticeship committee chairman of the Carolinas Branch, A.G.C., opened his shop to classes when facilities were not available in the city's schools.

## ON THE SUPER HIGHWAYS



Contractors get big assist from INTERNATIONAL TD-24s as \$823 million super road enters final construction stage.

The New York Thruway is now a year from completion . . . 427 miles long with four authorized extensions totaling another 128 miles . . . \$823 million projected construction cost . . . approximately 80,000,000 cubic yards of rock and stone to be moved.

Road builders on the Thruway from New York City to Buffalo have banked on INTERNATIONAL TD-24s to keep them on schedule . . . clearing the right of way . . . pulling bigger scraper loads faster than any other crawler . . . pushing elevating loaders . . . push-loading like no other crawler can . . . leveling and compacting fills.

Whether you handle big Thruway contracts or do custom work, your International Industrial Distributor is the fellow for you to call today for demonstration proof of how the complete INTERNATIONAL line of nine crawler and rubber-tired tractors can cut your costs.

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# Pushing Completion of New York Thruway



250 LOADS IN 10 HOURS is the production pace maintained by these 3 TD-24s and scrapers for the Savin Construction Corp., Hartford, Conn., on one of four contracts the firm has on the Thruway in Greene County. Savin uses 7 TD-24s to move 6 million cubic yards.



SUPT. RATES TD-24s TOPS. "Our INTERNATIONAL TD-24s and scrapers deliver paydirt faster than any others on the job—usually more than 100 loads each in 10 hours," says J. P. Connor, superintendent for Smith Construction Company, Pelham, N. Y., subcontractors of 1,500,000 cubic yards of earthmoving.



BEARCATS IN THE BORROW PIT are these two INTERNATIONAL TD-24s used by Arute Brothers, Inc., New Britain, Conn., on two Thruway prime contracts totaling \$3,082,905 in Monroe County. Four TD-24s are used for push-and-pull loading and for leveling the fill.



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## Florida Architects, Contractors Organize State Cooperative Unit

### • Joint Committee Patterned After Palm Beach Group

» FLORIDA architects have joined with the state's leading general contractors to organize a joint cooperative committee, designed to promote closer cooperation between the two groups and to enable them to serve the public more efficiently.



Mr. Gamble

The joint group, coming out of an organizational meeting in Orlando, Aug. 14, is made up of representatives from the Florida Association of Architects, affiliated with the American Institute of Architects, and the Florida State A.G.C. Council, representing nine chapters. The joint committee will not establish policies for the architects and contractors, but will be empowered only to make recommendations for joint policies to be carried out by the parent organizations.

Meeting in the Orange Court Hotel, Orlando, the delegates sought to pattern their state joint committee after a local group of A.G.C. members, architects, professional and civil engineers, and realtors, that has enjoyed outstanding success in Palm Beach County for over five years.

One delegate summed up the spirit of cooperation that existed at the Orlando meeting when he said, "There is a trinity in the construction industry of the owner, the architect and the contractor, and what is in the interest of one is in the interest of the others."

The first item of business was the election of Clinton Gamble, Ft. Lauderdale architect, as chairman of the joint committee, replacing W. H. Arnold, Palm Beach contractor, who served as chairman pro-tem. Mr. Arnold was later elected co-chairman. William P. Bobb, who is manager of the Florida East Coast Chapter and

secretary of the Florida State A.G.C. Council, was elected secretary.

Ira M. Koger, Jacksonville, president of the Florida State A.G.C. Council, who played a major role in organizing the joint committee, read a letter from A.G.C. President John MacLeod, Paramount, Calif., which stated in part:

"The Associated General Contractors of America is a firm believer in, and staunch supporter of, joint cooperative committee work, nationally and locally, between the A.G.C. and other appropriate divisions of the industry which have to work together.

"I think that perhaps the greatest value of the joint committee lies in its basic concept of industry-wide cooperation. The Joint Cooperative Committees between the A.I.A. and the A.G.C. have become a symbol of the desire of architects and contractors to understand each other's problems and to transcribe these understandings into practices and policies which benefit the entire building industry and the public."

Mr. Koger also read a telegram from A.G.C. Managing Director H. E. Foreman who said, "Sincere greetings and best wishes for a most successful meeting. Members of the F.A.A. and A.G.C. members are to be highly commended and congratulated in establishing your state-wide joint cooperative committee whose deliberations will not only result in mutual benefits to the construction industry, but to the public as well."

Mr. Koger also praised Igor B. Polevitzky, president of the F.A.A., for his interest in the joint group.

After dispensing with routine organizational procedures the joint group set up a program and named subcommittees to study problems and to find better ways for architects and contractors to work together.

John L. R. Grand, head of the University of



Mr. Bobb

Florida's department of architecture, was named chairman of a subcommittee which will study the possible presentation of an appropriate award to the outstanding student of the university in the construction field. Also named to the group were Jack O'Brien, Florida West Coast Chapter A.G.C. and T. E. Chason, Tallahassee Chapter A.G.C. It was hoped to present the award at the school's next commencement exercise, pending approval from the F.A.A. and the state A.G.C. council.

James M. Albert, president of the South Florida A.G.C. Chapter, was named chairman of a subcommittee to study the possible establishment of reference libraries for technical documents throughout the state where such a need exists. He will be assisted in this study by Robert Jahelka, a Ft. Lauderdale architect.



Mr. Arnold

A third subcommittee, headed by J. Hilbert Sapp, vice president of the Central Florida Chapter, A.G.C., was named to work out a standard of ethics and bidding practices between architects and general contractors in the state. Others on the committee include Mr. George J. Votaw, Palm Beach architect; Joseph Shifalo, an

Mr. Koger

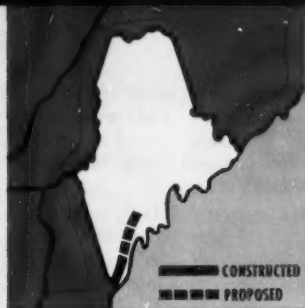
Orlando architect; and Messrs. Albert, O'Brien, and Jahelka.

Delegates from the architects and the A.G.C. council agreed to recommend to parent groups that mutual legislative interests be coordinated through the joint cooperative committee as recommended by the A.G.C. representatives. Plans were set up for the respective associations to present their own lists of legislative items to be considered jointly.

Other actions by the joint committee included the establishment of a modest budget for the administration of the group's program and the decision to hold at least two meetings a

(Continued on page 38)





# Extending the Maine Turnpike

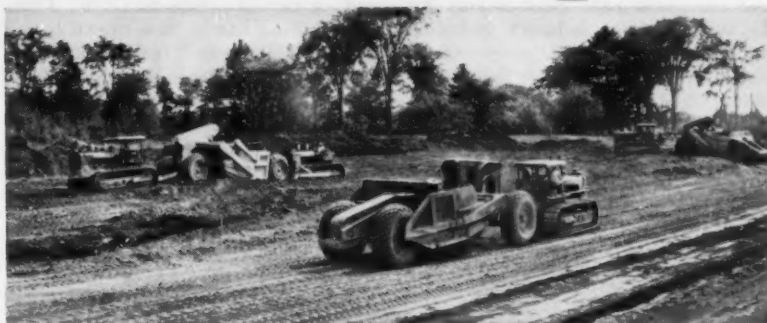
**Contractors using fleets of INTERNATIONAL TD-24 crawlers to complete 67.5 mile Portland to Augusta addition**

With traffic on the present Maine Turnpike running 10 years ahead of estimates, the pressure is on to complete the 67.5-mile Maine Turnpike Extension from the Portland by-pass to the outskirts of Augusta.

And contractors all along the Turnpike Extension are off-setting a six weeks' delay due to rain in early summer by using fleets of big 155 drawbar horsepower INTERNATIONAL TD-24 crawlers to make the dirt fly . . . hauling dense scraper loads . . . push-loading as no other crawler can . . . towing 50-ton compactors . . . every bulldozing job on the right of way from pioneering to finish grading.

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**DIGGIN' IN FOR DEMATTEO.** "After six weeks of rain it's mighty nice to see our TD-24s delivering 24 cubic yard payloads to help us get back on schedule" reports F. L. Kirby, superintendent for DeMatteo Construction Company, Quincy, Mass. Eight TD-24s are on the job.



**PACIN' THE BIG DIPPER.** Latrobe Road Construction Co., Inc., Latrobe, Penn. uses three TD-24s on its subcontract with Savin and Supt. F. E. Crowell states, "The TD-24 is the only crawler, bar none, that's been able to keep ahead of our big shovel operations".



**IT'S TD-24s 9 TO 5.** The Savin Construction Corp., East Hartford, Conn. uses 9 INTERNATIONAL TD-24s on its 10.585 section of the Turnpike to move 2,000,000 cubic yards of earth and 90,000 cubic yards of rock. Three TD-24s shown compacting a fill near Portland.



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(Continued from page 36)

year in conjunction with the annual meetings of the A.G.C. council in the spring and the F.A.A. in the fall.

The joint committee is also expected to study a proposed system of uniform plans and specifications for the benefit of the industry including standard symbols and abbreviations and a simplified check list for specification titles as well as standards for estimating time. The joint group will also look into state statutes on arbitration, and offer its services to various state, local and federal agencies concerned with construction.

The A.G.C. state council was expected to review any recommendations made by the joint committee at its mid-year board meeting Oct. 8 in Ponte Vedra.

Other A.G.C. representatives attending the organization meeting of the joint group were Harry Eaton, Florida Gulf Coast Chapter; Paul H. Hinds, manager of the South Florida Chapter; and Edwin R. Brown, executive secretary of the Central Florida Chapter.

### Palm Beach Group Expands

A joint cooperative committee that started out in 1949 as a forum to solve problems arising between architects and general contractors in Palm Beach, Fla., has in time grown to include engineers and realtors and has expanded its influence to include many related segments of the Palm Beach area's economy.

The joint group now represents the Palm Beach Chapter of the American Institute of Architects, the West Palm Beach Chapter of the Florida Society of Professional Engineers, the Palm Beach Sub-Section of the Miami Section of the American Society of Civil Engineers, the West Palm Beach Board of Realtors, and the Florida East Coast Chapter of the A.G.C.

Sponsored by the local A.G.C. chapter early in 1949, the organization was conceived as a means of overcoming technical problems within the area's construction industry. Besides technical problems, the group's program today includes the study of such civic

problems as freight rates, sewage disposal, a civic auditorium for West Palm Beach, county parks and beaches, roads and highways, and other facilities.

At first only A.G.C. contractors and architects were members, but as the engineering groups noted the expanding scope of the joint committee, they asked to join and were accepted. Still later the realtors board was admitted making the group truly representative of the construction industry.

William P. Bobb, Jr., executive manager of the A.G.C. chapter, by acting as recording secretary of the joint committee, continues to carry out the chapter's sponsorship of the program.

Often, outsiders have singled out the committee as the most outstanding example of inter-professional relations existing in Florida. Now about to begin its sixth year of operations, the group hopes to develop its effectiveness and service to the Palm Beach area to the point where it will become one of the most potent groups of professional people.

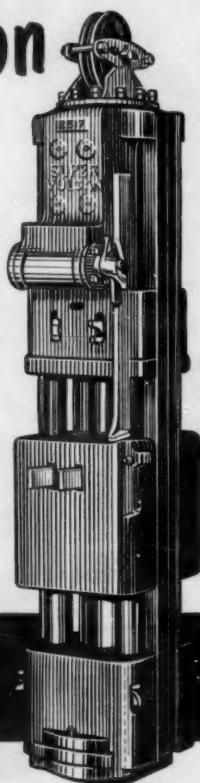
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Rugged strength, simple design, positive action. Delivers twice the usual number of blows per minute with 25 to 35 per cent less steam per blow.

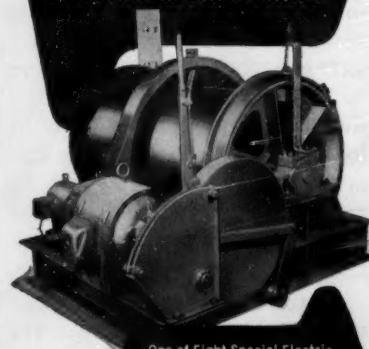
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# Opening up the Ohio Turnpike

## INTERNATIONAL TD-24

**crawler tractors preferred by contractors on toughest phases of Ohio Turnpike construction**

An estimated 29,506,100 cubic yards of earth and rock is being excavated and an estimated 46,905,000 cubic yards of borrow and fill will be moved before the great new 241.1 mile Ohio Turnpike is completed.

All along the Ohio Turnpike, from the eastern terminus in Mahoning County to the western terminus in Williams County, INTERNATIONAL TD-24 crawler tractors are taking over the toughest earthmoving jobs.

With 155 drawbar horsepower, the INTERNATIONAL TD-24 can conquer any big job. And the durability of every TD-24 means less maintenance, downtime, and operating expense, more profit for owners.

For full details or an on-the-job demonstration with the TD-24 or any of the other six great INTERNATIONAL crawlers and two rubber-tired tractors with scrapers or bottom dump wagon, call your International Industrial Distributor today.

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**HEAP LOADS IN A HURRY.** One of Julian Construction Company's seven TD-24s push-loads a new INTERNATIONAL 2T-75 two-wheeled rubber-tired tractor near Wauseon, Ohio. Julian has 1,000,000 cubic yards of dirt to move in sub-grading 7.2 miles of the Ohio Turnpike.



**LOADING IN MAHONING COUNTY.** Two of D. W. Winkleman's five TD-24s complete fast cycles in spite of soggy going south of Youngstown. Roughly three-and-a-quarter million cubic yards will be moved on this contract.



**SPEEDS SOIL-STRIPPING FOR SMALLEY.** Approximately 3,600,000 cubic yards of earth will be moved by D. R. Smalley and Sons, Celina, Ohio. One of their three TD-24s is used to pull a loader in the borrow pit near Milan, Ohio.



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## \$80,000,000 construction for Plattsburg jet bomber base

**Rugged yellow machines and engines help speed 3,882,500 cu. yds. of excavation for 10,000-ft. runway and other projects**



Matched Caterpillar equipment saves seconds every cut—a D8 push-loads a high-speed, big-capacity DW21 in sandy clay.



Operator's clear view of blade and job in the No. 12 helps speed shaping and leveling fill, also building road.

Keeping on schedule is the order of the day, every working day, on the \$80,000,000 Air Force Base project, Plattsburg, N. Y. Construction involves clearing, leveling and paving a 10,000-ft. runway, taxiways and parking apron, relocating two miles of single-track railroad as well as building hangars, barracks, offices, jet fueling plant and water and sewage facilities. When the base is activated in the fall of 1955, a Strategic Air Command jet bomber wing of forty-five B-47s and twenty KC-97 tankers will be stationed here.

The historic site of Plattsburg Barracks, one of the oldest military installations in the United States, is the scene of hustling activity under the supervision of the Corps of Engineers. To maintain schedule (operating two 8-hour shifts per day), contractors are relying heavily on rugged yellow track and wheel-type tractors, scrapers, bulldozers, motor graders, engines and other specialized earthmovers—standardization that is paying off in all phases of the project.

Working on construction of the runway, taxiways and apron, which involves 3,410,000 yds. of excavation, Dutcher Construction Corporation, Queens-town, Md., has a fleet of fifteen DW21s, eighteen D8s and five No. 12s. Fill is 27 ft. at the deepest point. Hauls vary from 1800 ft. to 6100 ft. one way, with the DW21s averaging 18 cu. yds. of very sandy clay per load. A D4600 Engine powers a shovel piling brush for burning, while two D3400 Electric Sets provide electricity for night lighting.

On another phase of the project, laying 63,000 ft. of 38-in. drain pipe, Winkelman-Tompkins-Jones, Plattsburg, prime contractor, is using a D8,



a PD4 Pipe Layer, a No. 6 Shovel, an HT4 Shovel and a D13000 powering an excavator. Working on the hangar area, C. D. Perry & Sons, also of Plattsburg, is employing seven D8s, four No. 80 Scrapers, one D7, two D4s and three DW20 Tractors with Scrapers. The Frederick Raff Co., Inc., is using two D8s and Scrapers and a D6.

Concerning performance, D. J. Dutcher, vice president of his outfit, says: "It has been my experience that Caterpillar\* equipment is more dependable and stays on the job better than any other make. The complete line of Caterpillar-built machines offers me the right equipment for every job. Wherever I go, I find it backed up by good parts and service." Charles Wilber, superintendent for C. D. Perry & Sons, reports: "Because of their low maintenance cost, ease of operation, dependability, excellent service and parts facilities and ability to operate in any weather, I am very well satisfied with our Caterpillar units."

Standardizing on CAT\*-built equipment has other advantages, too. Many parts are interchangeable, cutting down time and parts inventory. Operators and machinists, familiar with one make of machinery, get more work out of it. And the nearby Caterpillar Dealer provides time-saving, money-saving one-stop service whenever needed. See him—ask him to show you how you'll profit more by standardizing on Caterpillar equipment.



Building access road, D8 with No. 80 Scraper handles 20 cu. yds. a load on 1200-ft. one-way hauls.

Piling brush for burning, this shovel gets dependable, low-cost power from its honestly rated Cat D4600 Engine.

Versatile Cat HT4 Shovel backfills trench, while a D4 with PD4 Pipe Layer (not shown here) lays 38-in. pipe.



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## Value of Weather Data to Construction Studied

### • Accurate Long-Range Forecasts Sought by Contractors

» ACCURATE long-range weather forecasting is becoming of increasing value to the construction industry, as more groups within the industry are seeking ways to adapt Weather Bureau forecasts to their particular operations.

Architects consider general weather conditions in designing houses and buildings. Heating and ventilating engineers need a basic knowledge of weather in making their plans. Landscape architects and plant nurserymen depend on favorable climatic conditions in order to carry out their work.

General contractors usually make good use of weather forecasts if they are accurate and long-range enough to enable the contractors to plan their work in advance.

At a time when competition among contractors over jobs is becoming increasingly keen, profit margins are shrinking. A few days of good or bad weather can make the difference between a profit or loss on a particular job. If contractors can know in advance future weather conditions they should have a better opportunity to bid

more realistically and thereby reduce the chance of losing money on a job because work was delayed by bad weather.

The government's Weather Bureau for some time has been trying to determine if its weather reports are proving practical and useful to businesses.

Early this year Dr. Francis W. Reichelderfer, chief of the bureau, told the Building Research Advisory Board's Climatic Research Committee that his agency wants to assist all industry, including construction, by making weather reports more widely available.

#### Contractors Surveyed

Following this meeting certain A.G.C. building, highway and heavy members were surveyed to determine their need or use of long-range weather forecasts. Responses varied. Some of the contractors who were queried said they use Weather Bureau forecasts regularly.

Others said that they never get them or do not find them important to their

planning. Still others thought that the forecasts should be for periods longer than 30 days, preferably for three months. A number of replies requested the listing of high and low temperature forecasts in place of the daily averages.

Most said that a higher degree of accuracy was desirable and some replied that after comparing Weather Bureau forecasts with commercial service forecasts, the Weather Bureau was found to be more accurate.

#### Six-Month Forecast Praised

One contractor in the Midwest praised the bureau's six-month forecast as being very helpful in planning projects. A Texas highway contractor answered that his weather forecasts were coming to his office indirectly, and that they would be more useful if they came to him directly from the bureau.

Fourteen other segments of the industry were surveyed following the winter meeting of the B.R.A.B. committee and reports by eight of the groups were made known at the recent summer meeting of the group.

Some of the industry representatives planned to set up committees to consider further the use of climatic data. Other spokesmen, including the A.G.C., did not commit themselves.

A plant nursery spokesman sought more information on weather forecasts similar to what A.G.C. contractors asked. Three other organizations expressed interest in wind data, including average and extreme velocities, direction, simultaneous velocities with summer and winter temperatures.

#### More Study Needed

Architects suggested data on the behavior of materials and finished construction under impact of the weather. They also suggested simpler methods for applying climatic data for building design.

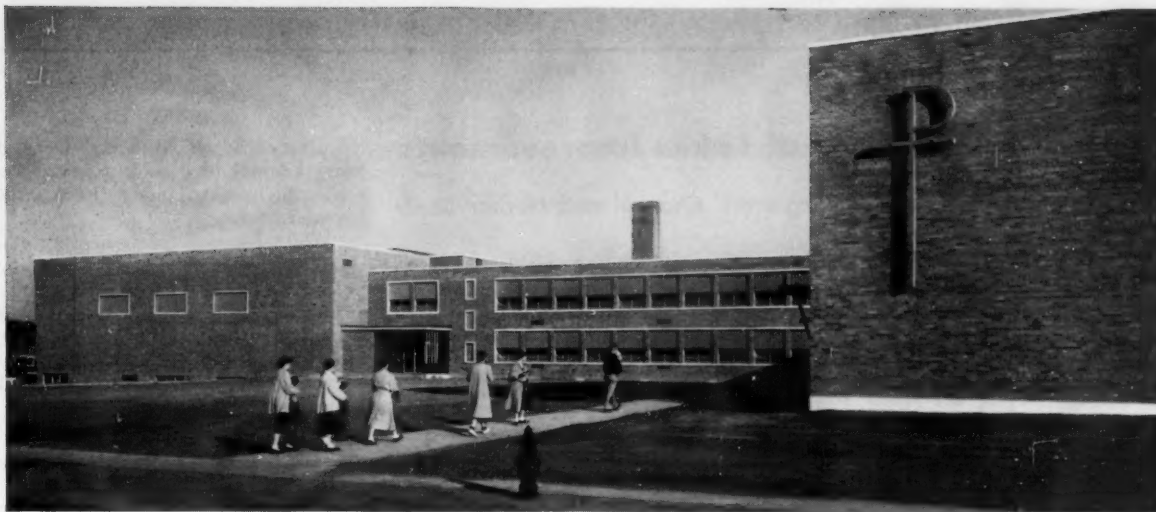
According to some who have been studying the value of weather forecasts to construction, the problem will be worked out when the industry's needs are made known to weather officials and the predictions of the Weather Bureau are made available to the industry. The pattern that seems to be emerging, according to one researcher, is one of more surveys and more conferences to make each side of the question better known. At present both sides—the industry and the weather forecasters—are waiting for the other to make the first move.

## Texas Firm Given Bonus; Completed Store Early



The Burnett Construction Co., A.G.C., Corpus Christi, recently won a \$6,200 bonus for completing the city's new F. W. Woolworth store 30 days ahead of schedule. At right, Cecil R. Burnett, partner in the firm, receives the check from Robert Flato, a member of the family that owns the two-story air-conditioned building. Also in picture are E. Dexter Hamon, left, architect of the store, and W. A. Schneideskamp, manager of the new building. Built at a cost of over half a million dollars, the structure is of reinforced concrete frame with masonry walls and concrete floors.





Lehigh Cements were used throughout this new school. Lehigh Early Strength Cement for the second floor concrete. Lehigh Portland Cement for all other concrete. Lehigh Mortar Cement for all masonry.

- **ST. REGIS PAROCHIAL HIGH SCHOOL**, Eau Claire, Wis.
- Contractor: **PETERSON CONSTRUCTION COMPANY**, Minneapolis, Minn.
- Architect: **E. F. KLINGER & ASSOCIATES**, Eau Claire, Wis.
- Dealer: **A. J. AIRIS COMPANY**, Eau Claire, Wis.

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THE CONSTRUCTOR, OCTOBER 1954

## Seaway Shows Need of Lakes Improvements

### • Report Due Soon on Engineers' Channel and Harbor Study

» CONSTRUCTION of the St. Lawrence Seaway directs attention more sharply to the questions of deepening the Great Lakes connecting channels and improving Lake harbors, Maj. Gen. S. D. Sturgis, Jr., Chief of Engineers, told the Great Lakes Harbors Association in an address at Muskegon, Mich., Sept. 13.

"These collateral tasks, which would enable fullest use to be made of the seaway, within themselves, will comprise major undertakings," General Sturgis said.

#### New Era for Development

Speaking on the subject of "The Seaway and Its Implications," the Chief of Engineers foresaw a new era of waterway development linking the Great Lakes with the Mississippi-Gulf system of inland waterways, to the south; the 1,000-mile Ohio River branch, to the east, and the 700-mile

Missouri waterway, to the west, as well as the St. Lawrence Seaway from the Lakes to the Atlantic Ocean.

There are some 150 miles of connecting channels between the Lakes where the controlling depth is generally 25 feet for downbound movements and 21 feet for upbound movements. Thus, General Sturgis pointed out, if the Great Lakes region is to derive the fullest potential benefit from the 27-foot St. Lawrence Seaway, the channels must be deepened to the same depth.

Last year Congress directed the Corps of Engineers to make a study of this undertaking. The investigation is almost completed, and General Sturgis expects the field report to reach him about Nov. 1. It will be reviewed by his office and the Board of Engineers for Rivers and Harbors, and then will be submitted to the governors of the interested states and to

the Bureau of the Budget. General Sturgis hopes to be able to send the report to Congress after the first of the year.

"While I cannot prejudice my official consideration of this report by predicting what the Corps of Engineers' findings and conclusions will be, I think I can, with propriety, state that I am optimistic as to the prospects for favorable action," General Sturgis said.

#### Harbor Improvements Needed

Harbor improvement and modernization would be needed in many instances even without the seaway, he continued. More than 100 harbor improvement projects already are authorized, ranging from small fishing boat and recreational harbors to main, heavy-duty industrial ports.

Many of these developments are substantially complete and now require only maintenance, but 46 authorized projects on or for waterways appurtenant to the Great Lakes are still incomplete, and in some cases not yet begun. General Sturgis said all 46 could be completed at an estimated federal cost of less than \$250 million.



Top officials of the St. Lawrence Seaway Development Corporation shown meeting for the first time Aug. 19, when four members of the corporation's five-man advisory board took office. Seated, left to right, are: M. W. Oettershagen, deputy administrator of the corporation, and former port director of Chicago; Lewis G. Castle, administrator, and former president of the Northern Minnesota National Bank at Duluth; and Hugh Moore, Easton, Pa., member of the advisory board, who is board chairman of the Dixie Cup Co., and Lifesavers, Inc. Standing, left to right: John C. Beukema, Muskegon, Mich., member of the advisory board, former secretary-manager of the Greater Muskegon Chamber of Commerce and a member of the Muskegon Harbor Commission; Kenneth M. Lloyd, Youngstown, O., member of the advisory board, who is legal counsel and secretary of the Mahoning Valley Industrial Council and member of the Ohio River Valley Water Sanitation Commission; and Edward J. Noble, Greenwich, Conn., member of the board, who is board chairman of the American Broadcasting Co., former chairman of the Civil Aeronautics Authority and former Undersecretary of Commerce. Fifth member of the board, Henry C. Brockel, Milwaukee port director, not present when photograph was taken, was sworn into office Sept. 24.

## Seaway Border Crossing Eased

The Bureau of Customs and the Immigration and Naturalization Service have made provisions for facilitating the movement of materials, equipment and personnel across the U. S.-Canadian border in connection with work on the St. Lawrence Seaway and the related power project.

A card-identification system to permit personnel attached to the projects to cross the border without delay has been established by the Immigration and Naturalization Service. Information on the system may be obtained from the agency.

#### Customs Procedures

In a letter from Commissioner of Customs Ralph Kelly to Bligh A. Dodds, collector of customs at Ogdensburg, N. Y., the Bureau of Customs has issued instructions to serve as a guide in the solution of practical problems concerning the entry of materials, equipment and personnel. Information, on general provisions or on special problems, may be obtained from Mr. Dodds' office at Ogdensburg or from the Bureau of Customs in Washington.

» ON TWO occasions last month President Eisenhower emphasized the policy of the Administration to seek more local responsibility and participation in resource development, while continuing to provide federal action where this "seems necessary or desirable."

In signing the omnibus navigation and flood control authorization bill on Sept. 3, the President said, in part: "My requests for appropriations authorized by this act will give precedence to projects in whose costs local interests are required appropriately to share."

Mr. Eisenhower elaborated on the Administration's policy, particularly with respect to power development, in his address dedicating McNary Dam in Oregon on Sept. 23. McNary Dam, he said, "illustrates an idea we have been applying in Washington for some 19 months." He continued:

#### Lincoln's Standard

"It is not a new concept. A century ago Abraham Lincoln put it better than anyone else has done. 'The legitimate object of government,' he said, 'is to do for a community of people whatever they need to have done, but cannot do at all, or cannot so well do for themselves, in their separate and individual capacities.'

"In keeping with Lincoln's standard, the federal government has certain vital responsibilities in such fields relating to the control and use of water as flood control, improvement of navigation, and reclamation and development of land. When in the course of assuming these responsibilities dams are built, hydroelectric power is often developed, of great value to the surrounding regions and to the nation.

"Such activities as these . . . are obviously, as Lincoln said, 'the legitimate object of government,' but here let us draw our line as he himself did, when he went on to say this: 'In all that the people can individually do for themselves, government ought not to interfere.'

"It is not properly a federal responsibility to try to supply all the power needs of our people. 'The federal government should no more attempt to do so than it should assume responsibility for supplying all their drinking water, their food, their housing and their transportation.'

Those who contend that the development and distribution of hydroelectric power is exclusively the responsibility of the federal government, the Presi-

## President Gives Resource Development Plan

- Stresses Aim for More Local Responsibility, Participation

dent continued, "fail to warn us that monopoly is always potentially dangerous to freedom—even when monopoly is exercised by government."

The true issue, he said, is "federal monopoly of power, as against public

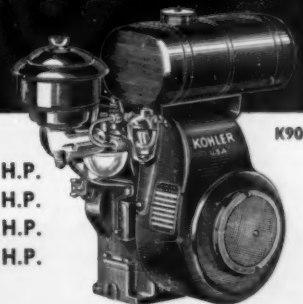
or regulated private power, freely chosen in each instance by the citizens of each area, with the federal government drawn in as a cooperating partner where this seems necessary or desirable."

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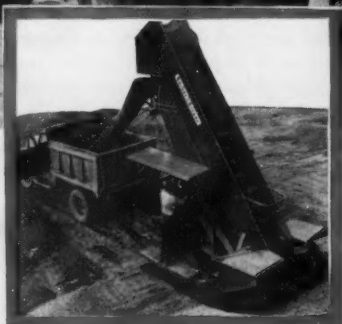
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» A GOVERNMENT official last month reaffirmed the federal government's strong stand for toll road development, which represents an about-face in the traditional federal approach to this development.

Robert B. Murray, Jr., Under Secretary of Commerce for Transportation, outlined the Administration's transportation program in an address before the National Association of Motor Bus Operators in Chicago. He stated, in part:

"My office has completed a pilot study of the economic potential for toll road development. This has resulted in revising the long-standing federal policy in opposition to toll roads, which were once considered as being inadvisable and expensive. Now toll roads are supported as a sound solution for many of the costly deficiencies on our national system of interstate highways.

"A year ago we found that a total of 12,000 miles of modern highways could be built as wholly self-liquidating toll roads. Today, half the states have recognized the value of toll roads and have built, are building, or have authorized 6,000 miles of these facilities

## Government Reaffirms Toll Roads Support

### • Murray Describes Change from Traditional Position

costing over \$7.6 billion. This will alleviate a large part of the estimated \$12.5 billion deficiency on the national system of interstate highways.

"The growth of traffic on our leading toll roads far exceeds estimates of the engineers who planned them. This is demonstrated by the facts that the New Jersey Turnpike is carrying volumes of traffic which were not originally anticipated for another 15 to 20 years, and the Pennsylvania Turnpike is seven years ahead of schedule in paying off its bonds. Traffic on the Turner Turnpike in Oklahoma is producing revenue which should result in anticipating the 40 year maturity of its bonds by 15 years.

"The relative importance of toll roads is further demonstrated by the fact that last year one-fifth of all money spent on highway construction went for toll roads. These projects not only cost the states nothing, but through generation of traffic, resulting from superior highway facilities, they serve to increase highway user reve-

nues. This adds up to more money for other highways.

"A surprisingly large number of motorists have demonstrated a willingness to pay premium prices for modern highway facilities if they are provided when and where wanted.

"Today, no strictly urban-type toll roads are in operation and we therefore have no experience upon which to base estimates of the national potentialities for this development. However, there are indications that toll roads may help solve some of the mounting pressures of urban traffic.

"The bulk of the nation's traffic congestion and traffic volume is found in or near our metropolitan areas. It is at these locations, therefore, that we have both the greatest need for toll roads and the potential ability to pay for them."

The Administration's encouragement of toll road construction was first advanced in the President's Economic Report to Congress last January (February *CONSTRUCTOR*, page 30).

Work progresses on a 114-mile project costing \$15 million, to widen Route 66 in Illinois from two lanes to a four lane expressway. Below is an 11-mile section of the work being done by the S. J. Groves and Sons Co., A.G.C., Springfield. Note uninterrupted flow of traffic moving alongside project. Also, on left is the company's batch plant. (Mercury Studio)



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**HIGHWAYS • AIRPORTS**

**President Names Group  
to Plan Highway Program**

President Eisenhower last month completed appointment of his Advisory Committee on a National Highway Program, which he established Aug. 30 with Gen. Lucius D. Clay, board chairman, Continental Can Co., as chairman. (September CONSTRUCTOR.)

Board members appointed by the President on Sept. 7 are:

Stephen D. Bechtel, president, Bechtel Corporation, A.G.C., San Francisco.

David Beck, president, International Brotherhood of Teamsters, Seattle.

S. Sloan Colt, president, Bankers Trust Co., New York.

William A. Roberts, president, Allis-Chalmers Mfg. Co., Milwaukee.

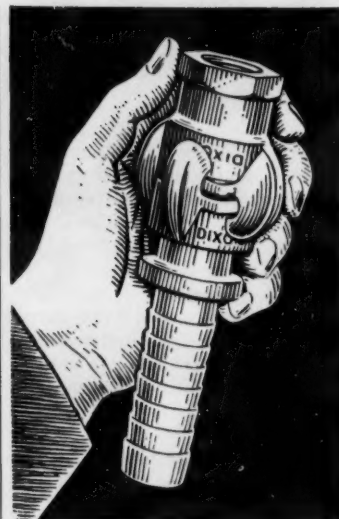
A White House statement said the committee would "prepare basic recommendations for translating into reality" the President's proposal for a vastly expanded national highway system. The proposal was presented to the Governor's Conference at Bolton Landing, N. Y., in July, in a speech by Vice President Nixon based on Mr. Eisenhower's own notes. At that time the President proposed a \$50 billion program over a 10-year period. (August CONSTRUCTOR.)

**To Work with Governors**

The committee, the White House said, "will consider various approaches to the problem and will work in co-operation with the committee of the Governors' Conference appointed at Bolton Landing in July for the purpose of formulating proposals in connection with the President's program.

Hearings by the President's Advisory Committee were scheduled for Oct. 7 and 8 in Washington to provide an opportunity for interested persons and groups to give their views.

A third group, the Cabinet Committee on Transport Policy and Organization, is reviewing problems of all forms of transportation, including highways. (August CONSTRUCTOR.) Its chairman, Secretary of Commerce Sinclair Weeks, announced last month that Arthur W. Page, New York, a director of the American Telephone and Telegraph Co., would direct the committee's working staff. Mr. Page said no public hearings would be held, but he would welcome written statements addressed to him in care of the Office of the Secretary, Department of Commerce, Washington 25, D. C.



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# Contract Method 'Marked Success' on Certain Virginia Highway Work

- Private Firms Do 70% of Surface Treatment Work
- Competition Among Bidders Means Economical Prices

By W. S. G. Britton

Assistant Maintenance Engineer, Virginia Department of Highways

» VIRGINIA has been contracting certain maintenance activities for the past thirty years with marked success. Contract maintenance has been confined to those activities which could be measured in specific units, and performed on a definite schedule of operations.

The following activities are regularly performed by contract:

- Bituminous surface treatments, both new treatments and retreatments, prime, seal, mixed-in-place, and penetration.

- Furnishing and delivering asphalt for patch work and state force performance.

- Plant-mixed bituminous concrete.
- Undersealing concrete pavements.
- Specialized bridge repairs.

The following activities have been performed by contract, or considered for contract performance:

- Patching concrete pavements.
- Painting steel bridges.
- Moving rights-of-way.
- Cleaning, filling and sealing joints in concrete pavements.

Approximately 70% of all surface treatment work is performed by contract. This work can be planned in advance and performed on a relatively

This is the seventh in a series of articles describing the benefits of handling highway maintenance work by contract. Reprints are available.

close time schedule. The quantities of materials can be predetermined with reasonable accuracy. The maintenance of actual records of materials applied is not difficult. This work is of such seasonal nature that a large temporary increase in organization would be necessary to perform all such work with state forces.

## Types of Contract Work

Contract surface treatment work is set up in the following classes:

(A) The contractor or supplier furnishes, and in some cases delivers, bituminous material to the job, after which the bituminous material and the necessary covering aggregate are applied by state forces. There has been considerable expansion of the truck delivery method in the past few years. Under this plan the contractor delivers the material directly to the surface treatment outfit on the job or into centrally located storage tanks. This method provides bituminous material at application temperature on

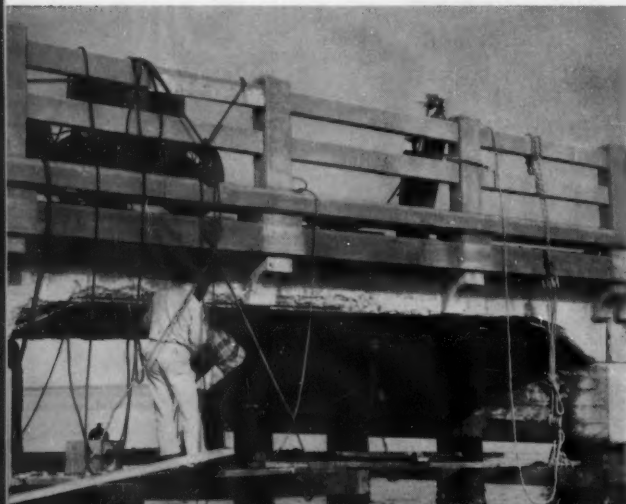
the job eliminating the necessity for tank car heaters, supply trucks, etc. Normal procedure includes the use of two or three trailers and one tractor truck per outfit being supplied.

(B) The contractor furnishes and applies both the bituminous material and the covering aggregate. The eastern section of Virginia contains deposits of local sand and gravel which provide a very satisfactory covering material for bituminous treatments on lightly traveled roads. This material can be excavated and stockpiled on the road by state forces during the winter months when the volume of maintenance work is lowest. Limited quantities of class B work are contracted in all sections of the state to make use of locally crushed aggregate and to prevent overloading of commercial quarries following class C contract awards.



Above, one of some 40 privately owned asphalt plants located throughout Virginia and nearby areas, that supply materials for contract maintenance.

Application of pneumatically applied concrete to bridge structures has been successfully contracted by Virginia. At left, below, repair crews remove deteriorated concrete from the underside of a highway bridge before replacing it with pneumatically applied mortar. Picture at lower right shows the repair work finished.



(C) The contractor furnishes and applies both the bituminous material and the covering aggregate.

On class B and class C schedules the contractor assumes full responsibility for the application and curing of the treatment, and handling of traffic. Flagmen employed by the contractor are required to pass out informational slips to motorists reading as follows:

#### A Word of Explanation

One-way traffic is necessary while we place a new surface on the road ahead.

There will be a brief delay while traffic moves through from the other direction.

We regret this inconvenience, but believe you would prefer this method to a long detour.

As you drive through the project, please follow the vehicle ahead and do not pass. Watch for uncovered road oil and flying stone.

This work is for your future comfort and safety. Please drive carefully.

Thank you,

VIRGINIA DEPARTMENT  
OF HIGHWAYS.

Contractors are also required to provide pilot trucks for the guidance of traffic on heavily traveled routes. Pilot trucks are paid for at a predetermined hourly rental.

During the 1954 season between April and November approximately 11,200,000 gallons of bituminous material and 570,000 tons of aggregate at a contract cost of \$1,936,500 will be applied under classes B and C. Approximately 4,000,000 gallons of bituminous material will be furnished and/or delivered for use by state forces under class A.

#### Competition Reduces Prices

Keen competition has developed between contractors performing this type of work throughout the state and economical bid prices are being secured. Increased volume of contract work has brought about an accompanying decrease in contract prices. The 1954 bituminous surface treatment proposals drew bids from twenty-two contractors.

Plant-mixed bituminous concrete is normally used for resurfacing on the heaviest traveled roads and other locations where this material can be secured economically. The rates of application and necessary quantities can be readily computed in advance of the work. During the current season approximately 272,000 tons of plant-



A highway contractor applies mixed-in-place asphalt surface with Moto-Paver. This year some 11 million gallons of bituminous material and one half million tons of aggregate will be applied by contract to state maintenance jobs.



Asphalt treatment is rolled in place by contractor's crew on highway resurfacing job in Virginia's mountains.

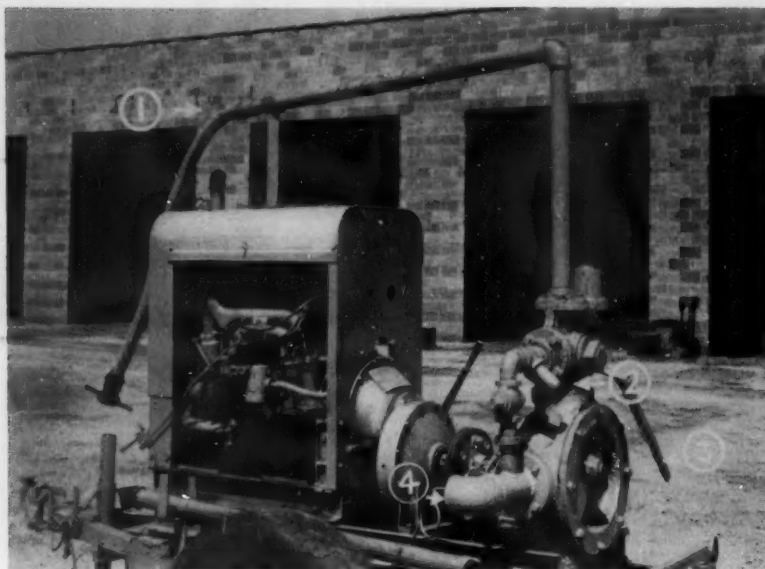
mixed bituminous concrete at a total contract price of \$2,040,000 will be applied by contract on resurfacing projects.

There are some forty privately owned asphalt plants located throughout the state and nearby areas. These plants are employed on both maintenance and construction work and in most cases satisfactory contract prices

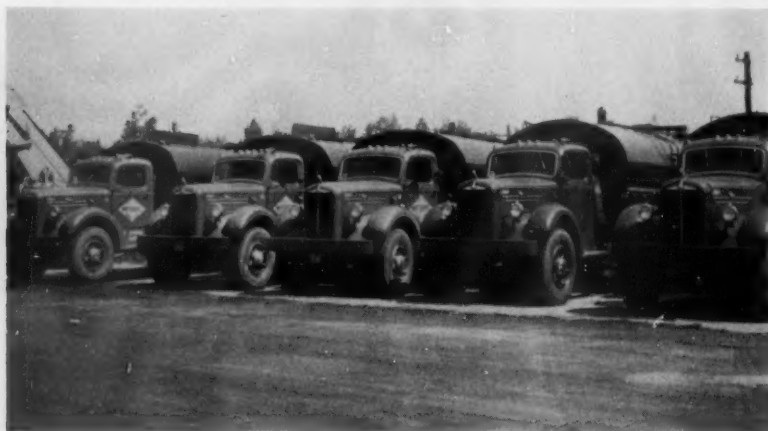
are secured by the Highway Dept.

Several types of mixers are employed in order to utilize best the various aggregates found throughout the state. In general, total application of 150 pound per sq. yd. or more is applied in two courses to secure the best possible riding surface. Plant mix contracts are normally advertised with separate unit prices for—(1)





Contractor's trailer mounted pump used for undersealing. 1. Bypass return to supply truck. 2. Nozzles connector. 3. Control level. 4. Section line from supply truck.



Contractor's trucks deliver bituminous material to job site or into centrally located storage tanks, eliminating the necessity for tank car heaters.

tons of mix, (2) tons of asphalt cement, and (3) gallons of prime.

This method requires slightly more work for the inspector but provides greater flexibility for the state and guarantees payment to the contractor for all quantities used. Adjustments in the asphalt content of the mix or the amount of prime or tack coat do not result in either hardship or bonus for the contractor.

Undersealing of concrete pavements has been successfully contracted during the past few years. Approximately 200,000 gallons of 15-30 penetration asphalt was furnished and

pumped under concrete pavements during 1954 at a cost of \$52,476. Quantities can be estimated with reasonable accuracy and the work performed on a relatively close time schedule.

It has been our experience that the most economical prices can be secured for this work during the early spring prior to the regular surface treatment season. At this time of year the contractors are anxious to secure work to occupy their organizations during an otherwise idle time.

The drilling of holes in the pavement is performed by state main-

nance forces as it is our belief that these men have a better knowledge of the points in need of undersealing. A competent inspector and qualified contractor's personnel are required to prevent wastage and prevent excessive jacking of the slabs.

## Asphalt Pump Speeds Work

One contractor has developed a small trailer-mounted asphalt pump and nozzles which can be attached directly to the supply trailer of hot asphalt, thereby eliminating the necessity for a distributor.

Major repairs on both substructure and superstructure of large bridges are normally contracted. Replacement or repairs to pile bents can often be completed more rapidly and economically by contract than by state forces. Several large contractors with heavy floating equipment are available for this type of work.

The application of pneumatically applied concrete to bridge structures has been successfully contracted. Necessary work can be inspected prior to bidding and the prospective bidder can make an accurate estimate of the cost of the proposed work. This type of work is highly specialized and is normally not required with sufficient frequency to maintain a well-trained state organization.

## 'Contract Method Advantageous'

The contract method of performance is considered advantageous on those maintenance activities where definite unit quantities are involved. Maintenance items of a general nature are not, in our opinion, economically adaptable to the contract method of performance. The impracticability of prior determination of the frequency of operation and the extent of work necessary makes it difficult to estimate properly the cost of such work. It is our opinion that maintenance by contract of these maintenance items mentioned is in the interest of economy. We are continually looking toward increasing the amount of maintenance work placed under contract and will expand our activities in this direction wherever and whenever it is considered in the best interest of the state.

There exists a friendly relationship between the contractors and the Department of Highways, and periodic discussions are held to consider the performance by contract of additional maintenance and construction work.



**UNIVERSITY OF KANSAS BUILDS NEW FIELD HOUSE:** More than 2,700 tons of structural steel went into the framework of new field house at the University of Kansas, Lawrence, Kansas. The structure features 10 rigid frames which provide a clear span of 250 feet. The frames, which weigh 80 tons each, are completely welded, and were produced simultaneously in Allied's three plants at Chicago, Illinois, Ham-

mond, Indiana, and Clinton, Iowa. The three plants worked on a schedule that permitted shipments to be made in a pre-arranged sequence (about 10 days apart), with frames arriving in Lawrence, Kansas, as needed by erection crews. The new building, completed in March, 1954, is used as an armory and for physical education purposes. It has a seating capacity of 15,490 people.

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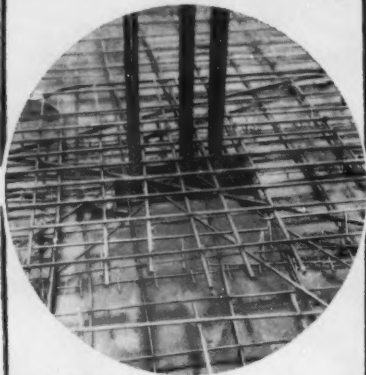


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## ACCIDENT PREVENTION

### Minn. A.G.C. Erects State Fair Safety Booth



Shown in the Chapter's booth at the state fair are, left to right, Don F. Manguson, staff safety director; Howard Ganley, Howard Ganley, Inc., St. Paul, Accident Prevention Committee chairman for 1954; and A. B. Cedarstrand, August Cedarstrand Co., Minneapolis, Committee chairman for 1953.

» THE A.G.C. of Minnesota, through the work of its Accident Prevention and Public Relations Committees, proudly displayed the 1953 safety record of its members at this year's Minnesota State Fair in St. Paul, Aug. 28-Sept. 6.

When booth space was made available to the chapter by state representatives, the newly-formed Public Relations Committee went to work and

built the display. Under the direction of Don F. Manguson, of the chapter staff, a large chart was erected showing the improvement the chapter's members had made in reduced accident severity and frequency rates since 1951.

Scale models of construction equipment were also set up, along with a list of contractors who are participating in the chapter's safety program.

### Accidents Continue Downward Trend in '53

#### • Construction Mishaps Drop 7%, Approach Wartime Low

» INDUSTRIAL accidents in general showed a decline last year over 1952, the Labor Department's Bureau of Labor Statistics reports this month.

Based on preliminary summaries prepared by bureau statisticians, all industries showed a decrease from 14.3 accidents per one million man-hours worked in 1952 to 13.4 last year. This represents a decline of 6 per cent.

Construction, conceded to be a hazardous industry, registered a decline in accident frequencies for the fourth year in a row, and showed the safest record since World War II, a period of curtailed construction. Last year this industry's frequency rate was

32.9 compared with 35.3 in 1952, a decrease of 7 per cent.

The severity rate of industrial accidents, based on the number of days lost per 1,000 man-hours worked, also dropped in the all-manufacturing group last year to 1.2 from 1.3 the previous year. In construction this severity rate dropped from 3.7 in 1952 to 3.2 last year.

These construction figures are based on over 4,600 general and subcontractors reporting in the bureau's survey this year. The split was roughly half general and half subcontractors.

Building contractors reduced their rate of accidents from 38.1 in 1952 to



37.2 last year, but the severity rate increased slightly from 2.7 the previous year to 3.0 in 1953.

Highway contractors, who had a frequency rate of 46 in 1952, experienced a rate of 38.5 last year. Severity of accidents over the same period decreased from 5.1 to 4.7.

Heavy construction contractors increased their frequency rate last year slightly to 31.2 from 29.8. For the same period the severity of accidents decreased to 4.0 from 4.5.

In the special-trades group, contractors doing plumbing, heating and air-conditioning work reduced their frequency rate last year from 31.3 to 25.6, while the severity rate climbed from 0.8 to 1.9 over the same period. Electrical subcontracting registered a frequency rate of 23.6 last year compared with 30.6 the year before. Severity over the same period was up slightly from 1.7 in 1952 to 1.9 last year.

All types of masonry work and plastering accidents showed a frequency decrease last year from 31.7 to 30.9, and a severity decline of from 2.5 to 2.0.

Roofing and sheet-metal work, a very hazardous type of work in 1952 with a frequency rate of 38.0, dropped to 35.1 last year, but the severity rate for the same period increased from 2.1 in 1952 to 3.9 last year.

#### Steel Erection Highest

Structural steel erection, which was the most hazardous type of construction work in 1952, with a frequency rate of 46.9, maintained its high position, though its rate decreased to 44.8. Its severity rate, however, jumped from 8.9 in 1952 to 13.8 last year.

Miscellaneous special-trade contractors reported a decline in frequency rate from 35.3 in 1952 to 32.3 last year, but an increase in severity from 2.5 to 4.5 over the same period.

Construction accidents, though seriously high in frequency, are not even close to the two most hazardous industries surveyed by the bureau—logging and stevedoring. (Mining industry accidents are surveyed by the Interior Department's Bureau of Mines.) Logging, which reported a frequency rate of 92.1 in 1952, dropped 17 per cent to 76.8 last year. Stevedoring, at a 74.7 rate last year, was 16 per cent below the 1952 rate of 87.9.

In sharp contrast to these "big accident" groups was the telephone industry that boasted the best record frequency-wise of 1.0 last year, compared to 1.6 in 1952.



#### backfill problem

## How Else Could You Do It?

IN JEFFERSONVILLE, INDIANA the E. H. Hughes Construction Co. had dug a 3' wide trench for a lateral sewerline to a depth of 12'—in some places 15'—to tie in to an existing sewer main. This spoilbank along the edge of a built up residential street (hidden by spoilbank in photo) presented a real backfilling problem. Because the street had to be kept open to traffic and dust raising held to the minimum, the huge spoilbank could not be filled from the street side.

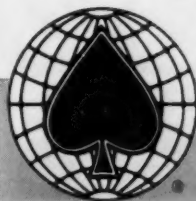
Hughes solved the backfilling problem—and at the same time compacted the filled trench—with a one-man-operated machine, the Cleveland Model 80-W. Needing minimum working space, easily able to pass under tree branches

and clear all obstructions, the compact 80-W worked off the street, travelling parallel to the trench on the opposite side from the spoilbank. The street was kept open and the dust problem minimized.

The one-man 80-W did the complete filling and compacting job simultaneously as it travelled, cleaned up and left the job ready for immediate repaving. Its low ground pressure and perfect balance on wide full crawlers practically eliminated damage to the lawns, sidewalks and driveways it crossed.

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# CLEVELAND

## Safety Council Unit Seeks Full-Time Staff

### • New Dredging Safety Standards Announced at Meeting

» THE Executive Committee of the Construction Section, National Safety Council, held its summer meeting recently in Hershey, Pa., to review its work in promoting safer construction jobs and to plan for future programs to carry out its policies.

To help carry out the future pro-

grams, members voted for the Executive Committee to find ways to raise \$15,000 in addition to current Construction Section revenue to employ a full-time staff assistant and necessary aides.

This should be done, members said, if the Construction Section is to be

run on the same basis as a regular division of the N.S.C.

In memory of Harold W. Richardson, past general chairman of the Construction Section, who died in May, the meeting passed a resolution praising him for "invaluable service to the cause of safety in construction."

The Engineering Committee in giving its report to the meeting announced that a set of dredging safety standards are being developed for contractors and others doing this kind of work. The committee also cited the lack of safety standards covering public protection in highway construction work, and sought to contact various trade associations in this field, including The Associated General Contractors of America, for help in developing the standards.

Other committees giving reports at the meeting included those dealing with visual aids, membership, research, the Construction Section's *Newsletter*, nominations, publicity, statistics, and publications.

H. B. Alexander, H. B. Alexander and Sons (A.G.C.), Harrisburg, Pa., general chairman of the Construction Section, presided over the meeting. Other officers taking part in the sessions were Vice Chairman George P. O'Rourke, Sr., O'Rourke Construction Co., A.G.C., Dallas; and J. George Robinson, manager of the A.G.C. of Missouri, secretary.



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### Corps Division's Safety Rules

The South Atlantic Division of the Corps of Engineers recently listed these five ways to work safer:

- Study accident reports and take proper corrective measures.
- Utilize the corrective action arrived at as a basis for the instruction and training of workmen to prevent a repetition of old accidents.
- Establish a continuing form of safety indoctrination that considers the over-all operations, changing conditions, including personnel.
- Schedule review and training with knowledge of safety standards in such publications as Corps of Engineers *Safety Requirements*, the A.G.C.'s *Manual of Accident Prevention in Construction*, and literature distributed by the National Safety Council.
- Impress government and contractor supervisors with the responsibility they have for complying with the Corps' safety requirements.

## New Publications Available On Shovel-Cranes

The publications listed below are available free on your request. Write to manufacturer giving title and job classification.

**TL-10 Truck Crane Job Picture Book**—Full page illustrations and job data on Lorain 6-ton turntable for mounting on your truck chassis in the field.

**TL-15 "Series" Catalog**—Complete catalog of the ½ yd. class Lorains—crawler and rubber-tire mountings.

**MC-104 Moto-Crane Catalog**—Shows construction details and job views of the lowest priced Lorain on Lorain-built rubber-tire carrier. Rated: 6-ton as crane—¾ yd. as shovel.

**TL-25 "Series" Catalog**—32 pages on the ¾ yd. Lorain (17½ tons as Moto-Crane). Covers Crawler, Moto-Crane and Self-Propelled mounted machines.

**TL "Series" Packaged Component Design**—The inside story of the Thew-Lorain TL "Series". Lithographed in full color on transparent plastic. Shows major assemblies of turntable in cut-away views. Pages superimpose on one another to "build" the turntable.

**"50" Series Catalog**—24 pages, in 2 colors of details and job views of the Lorain crawler-mounted 1-yd. machines.

**"524" Series Catalog**—Describes the companion rubber-tire machines to the "50" Series (30-ton rating as cranes).

**"42" Series Catalog**—This series available as Moto-Cranes and Self-Propelled only. Rated at 22½ tons as cranes.

**"79" Series Catalog**—Covers construction details of the 1½ yd. crawler Lorain.

**"80" Series Catalog**—The 1¾ yd. crawler-mounted Lorain is covered by this catalog.

**"820-K" Series Catalog**—24 pages, 2 colors. Detailed description and illustrations of the 2-yd. class Lorains. Covers all front ends.

**Charge-A-Paver Book**—Describes a new front-end that lowers concrete paving costs. Includes operating procedure, pictures and details.

**Lorain Hoe Book**—The application of Hoes from ¾ yd. to 2 yds. is graphically covered in 16 pages. Full page job illustrations—operating data.

**Tilt-up Construction Book**—This book demonstrates in words and pictures the importance of Lorain Cranes to this growing construction technique.

**Parts Kits Catalogs**—Lorain Parts Kits for replacement and modernization are designed to save Lorain owners money. This 28-page catalog describes and illustrates those available.

**Scoop Shovel Book**—Completely describes and illustrates the Lorain Scoop Shovel—a front-end attachment for stock-piling, mining and low head-room applications.

All of the above literature is available from The Thew Shovel Co., Lorain, Ohio.

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Put a "Lorain-50" on your next job... put these 6 features to work making money for you. They are only a few you will get when you put a Lorain-50 to work. They give you a balanced digging cycle, extreme ease of operation, powerful digging and crowding... they mean profit on any job you'll tackle. Get the Lorain-50 "Series" money-making story from your nearby Thew-Lorain Distributor today!

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Digging shocks and impacts "melt away". Engine can't stall in any digging. A standard "50" feature, that costs you nothing extra.

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Powerful, positive crowding force transmitted by chain drive. High-speed retract. Power dipper trip—saves fatigue, increases output.

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Don't be penalized by a "misfit" crawler. Choose from standard, long, extra-long and extra-wide crawlers to fit your exact job needs.

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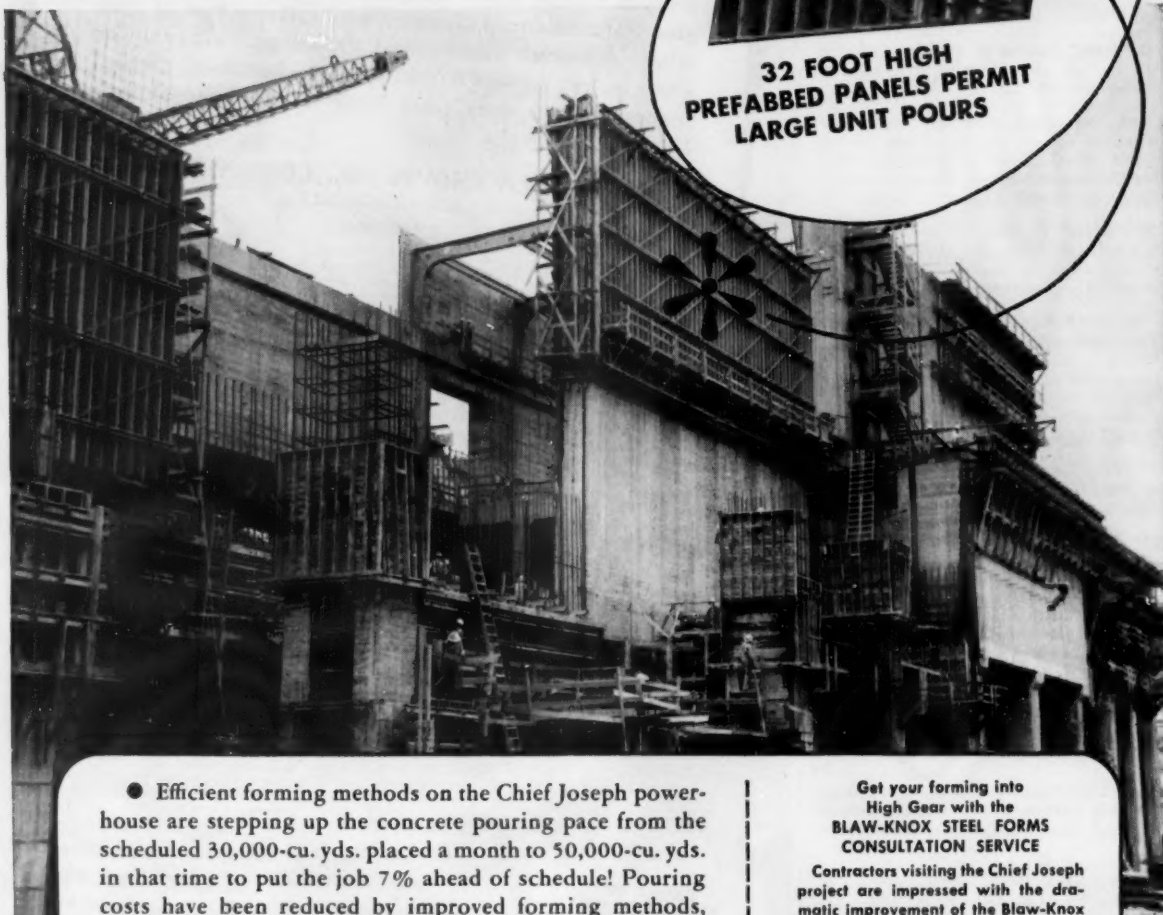


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## A. G. C. Mid-Year Report

To Governing and Advisory Boards, St. Louis, Missouri, Sept. 27-29, 1954

By H. E. Foreman

Managing Director, The Associated General Contractors of America

### General

The seven months since conclusion of the 35th annual convention of The Associated General Contractors of America in Los Angeles, March 1-4, 1954, have been a period of continuing readjustment among many segments of the domestic economy, and of tension and mounting uncertainties stemming from international developments.

Business activity in general, which had been undergoing a readjustment to peacetime conditions since the Korean truce, marked by a slight but steady decline, began stabilizing in mid-year, and has shown some signs of an upswing.

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*Roundup story on A.G.C. midyear board meeting begins on page 27.*

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For the construction industry, 1954 is a year of unusual significance as unfaltering demand pushes the volume toward another all-time peak, making it the brightest part of the economic picture. Throughout the first three-quarters of the year, the pace of construction has drawn increasing recognition of the industry as a bulwark of the national economy, bolstering employment and demand for basic materials.

For the association, the past seven months have been a period when a number of immediate and long-range aims have been realized in the fields of contract procedures and specifications, highway policy, industry relations, and accident prevention.

**National Economy.** Since the latter part of 1953, which was the most prosperous year in the nation's history, business trends, with the exception of construction, have been characterized by uncertainties.

While expressing confidence in an upturn this year, the Administration and Congress planned a series of steps to maintain economic stability if needed in which construction, and particularly public works, occupied a substantial role.

No drastic "pump priming" actions have been taken by the Administration, but enabling legislation has been passed for most of the economic plans affecting construction: a liberalized housing bill, provisions for accelerated depreciation in the tax law, an expanded highway program, and a modest program of planning local public works. A special staff is operating under the President's Council of Economic Advisers, directed by Maj. Gen. John S. Bragdon, former deputy Chief of Army Engi-

neers, as "Coordinator of Public Works."

The President announced on Aug. 12 that "The paramount fact about the economy at mid-year is that the recent decline in economic activity has come to a halt," and that "The level of business and consumer confidence in the economic future is high and improving."

On July 29, Secretary of Commerce Sinclair Weeks told a press conference, "Construction continues to be the mainstay of economic activity. It has been rising steadily at more than seasonal pace."

**The Association.** The association has taken positive actions under established policies with respect to the welfare of its members, the construction industry, and the public in general. The officers, members of the Executive Committee, the staff, and others have given leadership in executing the association's expanding program in the light of industry developments.

Members have been informed promptly of major developments affecting their operations, testimony has been presented to Congressional committees where appropriate, contact has been maintained with federal agencies in the interest of the industry, and cooperative work with industry organizations has been expanded. In all of its actions, the association has kept foremost its policy of basing both immediate and long-range actions on sound principles of service instead of expediency, so that its work will be of maximum benefit to all members, to the industry generally, and to the public.

The increasing importance of the construction industry, which is being highlighted and recognized to a degree never before realized during the current period of economic uncertainties, places even heavier responsibilities upon general contractors individually, and upon the association.

### Construction Markets

Construction activity probably will set an all-time record in 1954 approaching \$52 billion of work put in place. This will consist of more than \$36 billion of new construction and more than \$15 billion in maintenance and repair expenditures.

This will be the ninth consecutive year that construction has set new volume records, with total construction expected to surpass 1953's volume of about \$50 billion by 3 or 4 per cent.

At the beginning of the year, major governmental and

private forecasts estimated that construction would taper off by 2 to 4 per cent during 1954. The A.G.C., in its annual review of last January, was alone in citing favorable factors that persisted for a sustained high level of activity in 1954, listing needs and demand in such categories as community facilities, schools, housing, highways and commercial construction. These factors are being realized in current volume statistics.

Recent surveys of the country as a whole indicate continued record levels in most types of construction, and marked increases in such categories as highways, schools, community facilities, and commercial building.

Industry conditions of importance to the nation are the sustained keen competition accompanying a constant increase in the industry's capacity, generally stable prices of materials, and a tendency for wages to stabilize.

**Maintenance and Repairs.** A study by the Building Materials and Construction Division of the Department of Commerce reveals that maintenance and repair expenditures are greater than previously estimated, equaling almost one-half the value of new construction.

In 1952, maintenance and repair expenditures, according to new sources of information, totaled \$14 billion, compared with previous estimates of \$12.4 billion. On the basis of revised estimates, such expenditures probably reached \$15 billion in 1953, and will exceed that amount in 1954.

Substantial upward revisions were made in outlays for residential and farm buildings, sewage disposal and water supply facilities, and military and naval installations.

**Construction and the Economy.** Construction activity is at a peak at a time when other major segments in the economy have been declining slightly or leveling off. The amount of expenditures on construction and the extent of employment involved make the industry a powerful stabilizing influence in the economy.

The significance in the statistics now lies in the fact that more than one dollar out of every seven spent for end products and services is being spent for construction, and that more than 15 per cent of the nation's full-time equivalent employees are receiving their livelihood directly or indirectly through construction.

The industry can best fulfill this important role by fully utilizing the strength inherent in the national economy which results in naturally developed markets and methods of operation.

**Contract Method.** The association continuously seeks advancement in the use of the contract method, pointing out the great advantages to the public of this system in speed, economy and efficiency.

The means have included promotional literature, advertising, cooperative meetings, and legislative limita-

tions on day labor by government agencies. Important progress is being made in developing a larger market in highway maintenance construction by contract.

## **National Legislation**

The second session of the 83rd Congress was one of the busiest of recent times, and many of its actions affect construction either directly or indirectly.

Of particular interest to general contractors are the law extending the right to judicial review of disputes arising under government contracts, the increased federal aid authorization for highways, the flexible depreciation provisions in the tax law, and various appropriations for public works.

Also of significance to the industry was rejection of the bills to require naming of subcontractors and their prices in bids on federal projects, and of the proposed amendments to the Taft-Hartley Act.

**Judicial Review.** The President signed S. 24 into Public Law 356, 83rd Congress, on May 11, marking the successful conclusion of a three-year struggle to obtain the legislation, and of earlier efforts by the association dating back more than 20 years to eliminate unjust provisions in the "disputes clause" of the standard form of government construction contract.

Intent of the act is "to permit review of decisions of government contracting officers involving questions of fact arising under government contracts in cases other than those in which fraud is alleged."

Briefly summarized, it (1) safeguards suits of contractors now pending in the courts which have not been adjudicated; (2) restores the standard of review based on arbitrariness and capriciousness; (3) adopts the substantial evidence standard; and (4) prohibits provisions making final decisions on questions of law or the insertion of such provisions by reference.

Public Law 356 offsets the effects of the United States Supreme Court's decision in the Wunderlich case on November 26, 1951, in which it limited judicial review of disputes to cases in which fraud could be proved on the part of a governmental official. The A.G.C. took the lead immediately after that decision in seeking remedial legislation. A bill was passed by the Senate in 1952, but died with the 82nd Congress when the House took no action. Re-introduced in the 83rd Congress, the legislation was passed by the Senate in 1953, and amended and passed by the House in April 1954 with Senate concurrence in the amendments.

**Subcontractor Bill.** The proposed "Federal Construction Contract Act" (S. 848 and H.R. 1825) which would have required general contractors to name their subcontractors and their offers in bids on federal work,



died with the 83rd Congress despite exertion of strong political pressure on members of Congress.

A.G.C. members have actively opposed these bills because they would tend to increase the cost of federal construction, would tend to reduce competition among specialty and subcontractors, and could not accomplish by legislation their announced purpose of eradicating unethical practices in the industry.

The companion bills were approved by both the Senate and House Judiciary Committees, but the House Rules Committee in March tabled a motion to grant a rule for consideration of H.R. 1825, and the proposal was not considered when the rules of the House were suspended on July 21. In the Senate, S. 848 came up on the consent calendar many times, but was stalled each time due to objections from various Senators. Similar bills can be introduced when the 84th Congress convenes next January.

The action of large numbers of A.G.C. members in contacting their representatives in Congress undoubtedly played an effective part in the defeat of this legislation.

**Tax Revision.** The general tax revision bill recodifies, rewrites and changes the Internal Revenue Code for the first time in 75 years.

The most important change for the construction industry is the provision for accelerated depreciation of structures and equipment, permitting faster recovery of capital investment to encourage plant modernization and expansion. This was proposed by the A.G.C. in 1944 as a means of stimulating investment in construction, and was endorsed again by the last annual convention after the President announced it as one of his 25 tax proposals.

**Federal Aid Programs.** A great expansion has been made in the federal-aid highway program, the federal-aid airport program has been reactivated, and hospital grants-in-aid have been supplemented with a new health facility program.

On May 6 the President signed the Federal-Aid Highway Act of 1954, authorizing federal expenditures of \$1,932,000,000 during the two fiscal years beginning July 1, 1955. The provisions of \$875 million per year for regular federal-aid apportionments is an increase of 52 per cent over the previous rate of assistance to the states. The remaining authorizations in the act are \$81 million annually for improvements of federal roads, and \$10 million a year for the Inter-American Highway and Rama Road in Nicaragua.

The act comes close to recommendations of the American Association of State Highway Officials which the A.G.C. supported in testimony before the House Roads Subcommittee last year, and before committees of both the House and the Senate this year.

In the final supplemental appropriation passed by Congress in August, the federal-aid airport program was reactivated with the appropriation of \$22 million for grants-in-aid to state and local governments during this fiscal year under the Federal Airport Act of 1946. The A.G.C. supported recommendations of the National Association of State Aviation Officials in testimony before a Senate Appropriations Subcommittee last May.

A new health facilities program, requested by the President, was inaugurated by Public Law 482 which authorizes grants-in-aid of \$60 million per year for three years for special hospital and other health facilities for the chronically ill, aged and physically disabled. Congress appropriated \$21 million to start this new program, which supplements the continuing federal-aid hospital program.

The Administration can be expected to seek establishment of broad policies regarding the proper role of the federal government in aid programs as the result of studies being completed by the Commission on Intergovernmental Operations, pending educational conferences, and others.

**Contract Renegotiation.** The Renegotiation Act of 1951, which had expired last December 31, was reinstated and extended through 1954 by last minute action of Congress. The principal amendment increases from \$250,000 to \$500,000 the minimum of defense contracts subject to renegotiation during 1954.

**Lease-Purchase Act.** Public Law 519 opens a limited market in the federal public building field by permitting the General Services Administration and the Post Office Department to purchase buildings through lease contracts extending over periods from 10 to 25 years. GSA is permitted to spend up to \$5 million in annual payments the first year, and the Post Office Department is limited to \$3 million during that time, with funds to come principally from current rent appropriations.

**Housing Act.** The Housing Act of 1954 (Public Law 560) revises federal housing policy substantially along lines recommended by the President. Principal features are liberalization of Federal Housing Administration home mortgage terms; expansion of the urban redevelopment program; rechartering of the Federal National Mortgage Association to provide for gradual transfer to private ownership; authorization for 35,000 public housing starts this fiscal year; and safeguards against abuses in the FHA loan-insurance program.

**Public Works.** Partially carrying out Presidential requests, modest programs of advance planning and loans for public works have been authorized.

The Administration's expressed philosophy is that public works expenditures can be timed as a means of

offsetting any serious decline in private construction. Expansion of local public works construction in such an eventuality is the underlying theme, however.

In the federal field, appropriations generally have been below budget requests and below last year's appropriations, in line with a general goal of economy. Substantial funds have been made available for military construction. Restrictions on day labor or force account construction again were contained in appropriations for the Bureau of Reclamation, Bonneville Power Administration, and for roads in Alaska.

An omnibus river and harbor and flood control bill, the first in four years, authorizes more than \$1 billion for 179 projects to be constructed in the future.

Aside from the St. Lawrence Seaway project in cooperation with Canada, with the U. S. cost limited to \$105 million, few other large public works projects were specifically authorized. Several reclamation projects were approved, but the Administration-sponsored Upper Colorado River storage project, estimated to cost \$1.5 billion, was not acted upon by this Congress.

**Government Competition.** A bill providing for the termination of government operations which are in competition with private enterprise was passed by the House on July 23, but was not acted upon in the Senate, aside from brief hearings. The A.G.C. filed a statement with the House Committee on Government Operations expressing support of the bill's objectives, but suggesting inclusion of a reference to public works construction in the policy declaration of the proposed legislation.

A complete roundup of important legislation affecting construction is published in the September *Constructor*.

## **Labor Relations**

There is a growing need for statesmanship in government and for constructive leadership by management and unions in approaching the broad problems of employer-employee relationships.

The change in Administrations has brought about some change in philosophy during the past two years in contrast to the previous two decades when the government was the dominant force in labor-management relations, and habitually exerted its influence on behalf of labor unions.

Several improvements have been noted among the government departments and agencies in attaining impartial administration of the federal laws in the labor relations field.

The association's labor relations staff has been handling a large volume of work in assisting chapters and members in their daily labor problems, and in keeping them promptly informed of important developments in this field which affect their operations.

The Labor Committee met prior to the board meeting to consider labor problems.

**Taft-Hartley Act.** Hundreds of conflicting proposals for amendments to the Labor-Management Relations Act were made by labor and employer groups, and the President's 19-point recommendation contained a number of controversial changes, with the result that no labor legislation was passed by the 83rd Congress.

S. 2650, which embodied most of the President's recommendations, contained some features directly affecting construction. One would weaken the ban on secondary boycotts by unions taking action against secondary employers who are engaged together with a primary employer in construction at a common site. Others would permit employers and unions in construction to enter into prehire agreements, and would require membership in the union within 7 instead of 30 days.

The A.G.C. in March informed both the Senate and House Labor Committees that any action to weaken the act with respect to secondary boycotts would be interpreted by members as being discriminatory against the construction industry and inconsistent with the basic principles of the act.

A decisive vote of the Senate recommitted S. 2650 to the Senate Labor and Public Welfare Committee.

The House, which had waited on Senate action, never acted on H. R. 9904, a bill to comply with that portion of the President's request which was designed to protect striking unions against loss of representation recognition.

Late in April the Building and Construction Trades Department of the A.F.L. was seeking support for an amendment which would remove the construction industry from jurisdiction of the Taft-Hartley Act for a year or two until satisfactory substitute legislation could be worked out for construction. The A.G.C. declined to support the move.

The Taft-Hartley subject is a current political issue and will come up again in the next Congress.

**Collective Bargaining.** In a resolution adopted at the last convention, the association expressed its conviction that construction wages have increased commensurately with the cost of living and labor's contribution to productivity, and recommended that labor and management avoid further unwarranted increases in wage rates in an effort to combat further inflation and help stabilize the national economy.

For several years it has become habitual for unions to demand large wage increases annually. In some industries the increases have been granted with little resistance from management.

However, construction employers have resisted unrealistic demands this year in many instances throughout the country. A number of strikes have resulted, and

# "Can't be beat" for clean-up and shoulder work"

Supt. for S. J. Groves & Sons praises D Tournapull  
on New York State Thruway

With 1,800,000 cubic yards to move for the Waterloo Section of the New York State Thruway, 60 miles east of Rochester, S. J. Groves and Sons Company, Minneapolis, assigned 1,100,000 yards to 10 crawler-drawn LeTourneau-Westinghouse pans. Later in the job, they brought in 6 Tournapulls—three 16-yd. "C's" and three 7-yd. "D's"—to handle 300,000 yards.

Despite wet, muddy conditions, the 6 Tournapulls moved dirt every day the crawlers could. Exclusive differential, which automatically transferred power from slipping wheel to wheel on firmest footing, took the 'Pulls through muck sometimes belly-deep.

## "D's" handle 7 types of jobs

Of their 7-yd. "D's", company officials seemed particularly pleased. These 28 mph units, they pointed out, proved large enough and fast enough to work profitably in pusher fleets right along with the C Tournapulls and large crawler-scrapers. The "D's" also self-loaded to economically handle a number of scattered "one-man, one-machine" assignments, thereby keeping the bigger scrapers free for major dirtmoving. And, when production work was completed, the versatile "D's" stayed behind to clean up. In all, they handled these 7 special assignments:

1. Hauled 30,000 cubic yards of topsoil for spread on landscaped areas of approaches and overheads. Typical output on 1000' cycles: 20 loads (110 pay yards) per Tournapull per 60-minute hour.
2. Built interchanges, hauling up to 25,000 yards of sand, clay, and loam per job.
3. Traveled between concrete forms to self-load and remove excess gravel before paving.
4. Backfilled around bridges and culverts.
5. Cut 6 miles of ditches.
6. Finish-graded shoulders.
7. Used cable hitch to keep motor patrol from sliding off while finishing steep side-slopes.

"These D Tournapulls," says Project Superintendent Andy DeSimon, "are the best machines we've had for clean-up and shoulder work. They can't be beat on this scattered type of operation."

Whether you have just a few units or several fleets, take a tip from S. J. Groves . . . investigate D Tournapulls soon! Their speed, self-loading ability, and job-to-job mobility make them ideal for use with bigger scrapers, either in production work or for clean-up. With thousands of "D's" now in the field, chances are you'll be bidding with 'em or against 'em from now on. We'll gladly demonstrate one on your present job to show why we think you should be bidding *with* 'em.



Ability to turn around non-stop in space only 25'4" wide cuts vital seconds off each cycle. For other work, scraper interchanges with 10-ton rear-dump, 10-ton lift-and-carry crane, or 10-ton flatbed.



Cable-equipped "D" easily holds motor patrol on side-slope. Big low-pressure tires do no damage to concrete, curbs or tracks. Unit is light enough and narrow enough to drive job-to-job through cities and over main roads.

Tournapull—Trademark Reg. U.S. Pat. Off. PDP-608-H-b



Now available...FREE—a valuable new reference book—"Earthmoving—An Art and a Science." Contains 60 pages of detailed information on how to increase output and lower dirtmoving costs. Unbiased. Written by experienced field engineers...checked by veteran dirtmovers. For your postpaid free copy, send coupon today to LeTourneau-Westinghouse Company, Peoria, Illinois.

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# GYRO-FLO

## ROTARY COMPRESSORS

**117** units speed  
construction  
of the  
**New York Thruway**



These four 600 cfm GYRO-FLO portables supply ample air power for operating up to eleven I-R wagon drills on one section of the New York Thruway. Air from a common receiver is piped 700 to 800 feet to the drilling site through a 6" line. In the background is a completely self-contained I-R Quarrymaster for sinking large, deep blast holes.

Here, an I-R GYRO-FLO supplies abundant air for operating a pneumatic pile hammer, driving sheet piling for construction of one of the Thruway's many bridges.

The GYRO-FLO compressor has repeatedly proved its ability to operate continuously under all types of working conditions, with a trouble-free dependability and easy portability heretofore not obtainable in any portable air compressor.

These compressors furnish air to users of 173 Ingersoll-Rand Type FM Wagon Drills—more than 70% of the total wagon drills on this project.



By early 1955, you'll be able to drive from New York City to Buffalo—without a single traffic light or stop sign. That's the fabulous New York Thruway, a dream that I-R Air Power is helping to carve out of rugged terrain where many sections are solid rock.

One hundred seventeen GYRO-FLO rotary compressors, with a combined capacity of 61,265 cubic feet of air per minute, are speeding the job to completion—driving Ingersoll-Rand rock drills and other pneumatic equipment on this high-speed construction project.

Here, where sustained drilling speed and uninterrupted production are of particular urgency, the simplicity and dependability of the GYRO-FLO

design really pay off. The GYRO-FLO rotary sliding vane compressor has no valves, pistons, rings, rods or clutches to wear out, adjust or replace. It delivers an abundant supply of oil-free air at temperatures that never go above 200 F. And pressure is automatically controlled closely and smoothly all the way from 0 to 100% capacity.

Available in 125, 210, 315 and 600 cfm, GYRO-FLO offers the only complete line of rotary portables—each size proven by years of heavy duty in the field. Get the complete GYRO-FLO story from your nearest Ingersoll-Rand distributor or branch office. It will save you money now and for many years to come.

2-94

**CONTRACTORS'  
COMBINATION**

**Ingersoll-Rand**  
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COMPRESSORS

• ROCK DRILLS

• AIR TOOLS

• CARSET JACKBITS

• PUMPS

unions have continued efforts to split employer bargaining groups.

Construction's current peak volume has vaulted the industry into a position of unusual importance to the entire national economy, and as such has drawn public attention to its operations. The future holds a great potential for the industry in meeting the needs of the nation's communities. But the industry will be expected to hold its costs in line with the costs of other services and commodities.

It is not unreasonable to expect the unions which are a part of this industry to cooperate with management in protecting the market and realizing the potentials for the future.

**Government Departments.** Injection of a philosophy of objectivity and fairness has been noted in the government's administration of laws concerning labor.

Definite improvements have been evident in the Labor Department's administration of the Davis-Bacon predetermined wage rates for federal construction projects, and the wage and hour law.

A new attitude of impartiality in the administration of the Taft-Hartley Act has been evident in the National Labor Relations Board since the appointment of three new members by President Eisenhower. Previously the old board had been accused of seeking to circumvent provisions of the act through administrative action more in keeping with the old Wagner Act.

The board has clarified the strike-notice requirements of the Taft-Hartley Act in connection with the proposed termination or modification of existing collective bargaining agreements.

In another important decision in July, the board held that under recent court decisions, members of an employers association could legally lock out their employees when faced with the "threat" of strike and "whip-sawing" tactics by a union.

The board also made a notable decision in the jurisdictional field in April, finding two locals of the pipefitters union in the Philadelphia area guilty of unfair labor practices by seeking to force employers to assign work disputed with the riggers to their members. The NLRB went beyond specific incidents cited in the case by making a determination to protect employers in the entire Philadelphia area.

In July the Board issued its first major policy statement with announcement of new jurisdictional standards by which it will not accept cases which are predominantly local or intrastate in character. The rules further tighten the old NLRB's standards for asserting jurisdiction, and in some cases the required amount of dollar volume involved before the NLRB will take jurisdiction has been doubled over old standards.

Several labor organizations have termed the new policy

discriminatory. From the employers' point of view, the tightened policy adds to uncertainties as to whether they may seek relief from illegal union activities in state courts or with state agencies in view of the United States Supreme Court's decisions in the Garner and related cases.

**Supreme Court.** Many significant decisions affecting construction were handed down by the U. S. Supreme Court during its term which ended last June. By far the most important decisions were those dealing with conflicts between state and federal jurisdiction.

One result of the Garner case was to prevent state courts from handling certain labor disputes which also were covered by the Taft-Hartley Act. This leaves a "gray zone" or no man's land in instances where the NLRB may decline to act. Following a second message from the President on conflicts between federal and state jurisdiction, the Senate Labor Committee sought to eliminate the vacuum by recommending legislation which would grant state courts and agencies the right to act where the NLRB refused to assert jurisdiction.

The Laburnum case was the Supreme Court's first exception to its rule in the Garner case. In upholding a damage award by a Virginia state court against a union because of conduct violating both the state's common law and the Taft-Hartley Act, the Supreme Court stated that the Garner case involved preventive action (state court injunction) while the Laburnum case involved redress for past wrongs through damages.

In March the Supreme Court, in its first decision interpreting the Davis-Bacon Act since its passage in 1931 and amendment in 1935, held that wage rates predetermined by the Secretary of Labor and included in government construction contracts are not a representation or warranty as to the prevailing wage rates in the contract area. In effect, this overrules former actions by the Labor Department when higher than actually prevailing rates were specified on the basis that such wages would be necessary to properly man the project.

**Investigations.** Subcommittees of both the Senate and House Labor Committees are investigating welfare and pension funds covered by collective bargaining agreements for the purpose of determining whether legislation is needed to safeguard administration of the funds. Questionnaires will be sent late this year to all unions and employers participating in such funds.

An Anti-Racketeering Subcommittee of the House Government Operations Committee has been established to conduct investigations and hearings and report to Congress next year on the adequacy and administration of laws governing racketeering.

**Disputes Board.** The National Joint Board for the Settlement of Jurisdictional Disputes, which is operated



by the A.G.C., other employer groups and the A.F.L. Building and Construction Trades Department, now is in its seventh year.

Its effectiveness has increased in freeing individual projects from jurisdictional work stoppages, and in bringing about negotiation of new national jurisdictional agreements between international unions. Several combinations of international unions now are working toward such understandings on major issues, and it is in this field that the board has exerted a wholesome influence that has not generally been recognized.

The importance of the industry's settling its own problems through the joint board was pointed up by the National Labor Relations Board's decision in the Philadelphia Riggers case last April in which NLRB encouraged use of the joint board for the solution of jurisdictional problems. In an article in the July *Constructor*, NLRB Chairman Guy Farmer stated:

"If there had been no joint board, our five-member board would have had a great many more work-assignment disputes to determine than it has had. . . . The joint board, acting with the cooperation of all parties, can often reach the roots of the controversy while our board must of necessity limit itself to a negative order."

The association is indebted to those members who have devoted time and energy to serve on the joint board.

## Contracts and Specifications

The several subdivisions of the Contract Forms and Specifications Committee have continued their work to obtain clear, equitable provisions in specifications and contractual procedures of public and private agencies.

In addition, improvements with respect to contracts and specifications are attained through work in other fields, such as legislation and industry relations. While a new high-water mark has been reached in the field of government contracts and specifications, improvements are a continuing process, and much remains to be done.

The Coordinating Committee of the Contract Forms and Specifications Committee will meet to review its program at this board meeting.

**Government Contracts.** As described in the National Legislation section, enactment of Public Law 356, offsetting effects of the Wunderlich decision, solves a major problem relating to the disputes clause in government contracts dating back more than 20 years. Representatives of the association have been conferring with General Services Administration officials regarding future contract administration in the light of this act, and also concerning further standardization that is needed in the government construction contract form.

The protection afforded by P. L. 356 was invoked for the first time in the United States Court of Claims on

behalf of the Wagner Whirler and Derrick Corporation, and the court's decision of June 8 constitutes evidence of satisfactory protection under this law.

In connection with administration of this law, there are indications that a contract appeals body may be established within the Bureau of Reclamation, with functions similar to those of the Armed Services Board of Contract Appeals. Some officials have interpreted language of the House Judiciary Committee's report on this bill as requiring the naming of such groups to render decisions on contract disputes.

**Specifications Units.** Since conclusion of the 35th annual convention, the Task Units for Corps of Engineers Specifications and for Bureau of Yards and Docks Specifications have each held three meetings. The Bureau of Reclamation unit has met twice. A principal subject discussed at these meetings was the handling of change orders and disputes in connection with government contracts, which is discussed in the Heavy Division section.

Much work has been done since 1948 in improving provisions in Corps of Engineers specifications, to the mutual advantage of the Corps and general contractors.

A meeting was held on June 21 with the Southwest Division at Dallas, attended by the division and district engineers and other local personnel, representatives of the Chief of Engineers and A.G.C. unit members. Its success suggests that similar meetings will be held in the future in each of the divisions.

The Task Unit for Municipal Specifications continues to work closely with the American Public Works Association in the review of A.P.W.A. standard specifications.

As a result of the first meeting of the Task Unit on Rural Electrification Administration Specifications, which was created early this year at the request of the REA, revised contract forms for telephone line construction and electric distribution system construction will incorporate a number of suggestions made by the A.G.C. unit. The new documents are currently being made available for study and will be discussed next month at a meeting of the unit with top REA officials.

**Private Contract Documents.** The Joint Cooperative Committee of the A.P.W.A. and A.G.C. has completed its work on the *Uniform Public Works Engineering Construction Forms*, recommended for use on municipal engineering construction projects. Copies of these forms, which were approved earlier this month by the A.P.W.A. annual convention will be available soon through the A.G.C. national office.

Topics to be discussed at the meeting of the Joint Cooperative Committee of the American Institute of Architects and A.G.C. immediately following this board meeting will include the revision of the insurance provisions in the *A.I.A. Standard Form of Contract* and the gen-

eral contractor's financial responsibility clause in the *A.I.A. Owners' Protective Bond*.

Much cooperative work has been done in the contracts and specifications field by joint cooperative committees of the A.G.C. and the American Society of Civil Engineers, the American Association of State Highway Officials, and the National Association of State Aviation Officials.

The principal work of many joint committees established by chapters and branches with local organizations has also been directed advantageously in this field.

## Building Construction

More than \$13 billion in new private building construction has been put in place during the first eight months of 1954, an increase of about 6 per cent over the figure for the same 1953 period.

Although expenditures declined 11 per cent in industrial work, this was more than offset by a sharp upsurge of 30 per cent in commercial construction, a 6 per cent rise in residential construction, and steep increases in church, educational, and social and recreational construction.

In the public category, the combined volume of residential and nonresidential construction totals \$3.3 billion, about the same as in the January-August period last year. A decline in public industrial construction, a large part of which is building, was compensated by a 20 per cent increase in public schools. Construction of military facilities, which also contains many building projects, shows a decline of 39 per cent.

Some stimulation of the building market is expected during the next year through new legislation in housing, lease-purchase construction of federal buildings, flexible depreciation provisions in the tax law, and the new health facilities program.

The Building Contractors' Division covers a wide range of activities and problems affecting building contractors. Its work will be reviewed, and particular problems concerning building will be considered at a round-table session of building contractors at this meeting.

**Subcontractor Relations.** In August the association distributed invitation to bid forms, suggested for use in inviting bids for subcontracts. The forms were recommended by the Subcontractor Relationships Committee and endorsed by the Executive Committee at its meeting July 19 and 20.

The forms, available to A.G.C. members and other general contractors, were developed to bring about more widespread observance by both general contractors and subcontractors of the *A.G.C. Code of Ethical Conduct* in the bidding and award of subcontracts. Printed on the forms is this statement, in part:

"You are advised that we subscribe to the *Code of Ethical Conduct* of The Associated General Contractors of America . . . and we intend to conform to the letter and spirit contained therein in the handling of your proposal."

In addition, suggested form letters have been distributed to members and chapters for use or adaptation in cases where subbids are invited by postcard.

Response to this development has been enthusiastic and encouraging, as evidenced by the filling of orders for nearly 200,000 forms in the first month from chapters, members and others outside the association, including subcontractors.

The form is one of the steps authorized by a resolution of the 35th annual convention, which also encouraged chapters to establish committees, in which representatives of local subcontractors' organizations might participate, empowered to hear charges of violation of the *Code of Ethical Conduct* and to make findings of fact.

A number of chapters already have adopted, or are in the process of adopting programs in accordance with this resolution.

While usage of the forms is voluntary, the Subcontractor Relationships Committee, in presenting the resolution to the convention, stated, in part:

"We believe that reputable general contractors will want to use forms which state that they will abide by the A.G.C. Code of Ethical Conduct, because by doing so they will give added assurance to subcontractors of their intention and desire to conform to the recognized ethics of the industry. . . . We believe further that the subcontractors who receive this added assurance . . . will be more eager on their part to adhere to and cooperate in the observance of recognized ethical practices of the industry."

The association consistently opposed bills (H. R. 1825 and S. 848) introduced by specialty and subcontractor associations for the ostensible purpose of eliminating bid shopping and bid peddling, in the sincere belief that they were detrimental to the best interests of the industry, the government, and the public.

This is a positive program based on the premise that industry problems can be solved most effectively by constructive action of leaders in the industry.

**Cooperative Work.** Much of the division's work is carried out in cooperation with other organizations.

Much work on contracts and specifications and other subjects of mutual importance has been performed through the Joint Cooperative Committee of the American Institute of Architects and A.G.C.

This committee recently reviewed and approved distribution to building chapters and members of the booklet, *Building Better from Modular Drawings*, which was prepared by the A.I.A. with cooperation of the Housing

## PUMP EXPERTS STUDY CONTRACTORS' PROBLEMS

Contractors who have ever had a pump fail on the job realize the importance of choosing the proper pump.

A pump failure may hold up the job, cause men to be idle, tie up other equipment, or even prevent finishing the contract on time.

The best insurance is to have a pump that has proved itself on many tough assignments.

The Gorman-Rupp Company of Mansfield, Ohio claims that their pumps will out-perform any pump of comparable size and type on the market. So states their guarantee. The greater capacity of these pumps when working against high heads is very important to the contractor. They are the simplest of pumps and practically trouble-free. They never quit on the job.

Years of study and research by engineers in the field and the laboratory have made possible these claims and the guarantee.



### FIELD NOTES on the BEST

### DIAPHRAGM PUMP EVER BUILT!

With mud, sludge and water seeping into a 28 foot pit for an industrial sewer installation, W. W. Purdy Construction Company of Mansfield, Ohio put this Gorman-Rupp 3" diaphragm pump 3D-8R6, on this job at the Empire Steel Corporation factory at Mansfield.

A junction of several six-foot storm sewer tiles was necessary. Rapidly rising water in the 12 x 22 foot pit flooded out workmen and 18 inches of mud and slime accumulated in the pit. The Gorman-Rupp diaphragm pump cleaned out the pit and had the workmen back on the job in 30 minutes.

The job involved an 18 foot suction lift, 8 foot discharge elevation and about 35 feet of horizontal 3" hose discharge line into an open manhole. No attention was necessary except fuel supply and starting or stopping when required. The unit is self-priming. It was necessary to operate the unit several minutes every hour.

**THE GORMAN-RUPP COMPANY**  
MANSFIELD, OHIO

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## TO PUMP MORE WATER



GORMAN-RUPP  
125 M PUMP

*and doing it on-the-job EVERY DAY!*

### NO OTHER PUMP, SIZE FOR SIZE, CAN EQUAL ITS PERFORMANCE

Our distributors are authorized to put a Gorman-Rupp Contractors' Pump on any pumping job, any time, anywhere, alongside any other make pump, size for size. The Gorman-Rupp pump is guaranteed to pump more dirty water more hours, using less gasoline and to prime quicker than any other self-priming pump. If it isn't the best all-around pump, our distributor will accept the return of the Gorman-Rupp pump and pay the user any installation expense incurred.

Only the utmost confidence in the product could justify this guarantee.

We can furnish you with any size of self-priming centrifugal pump ranging in capacity from 1½ in., 5,500 G.P.H. to the powerful 10 inch, pumping 240,000 G.P.H.

Ask for Contractors' Pump Bulletin No. 4—CP-11

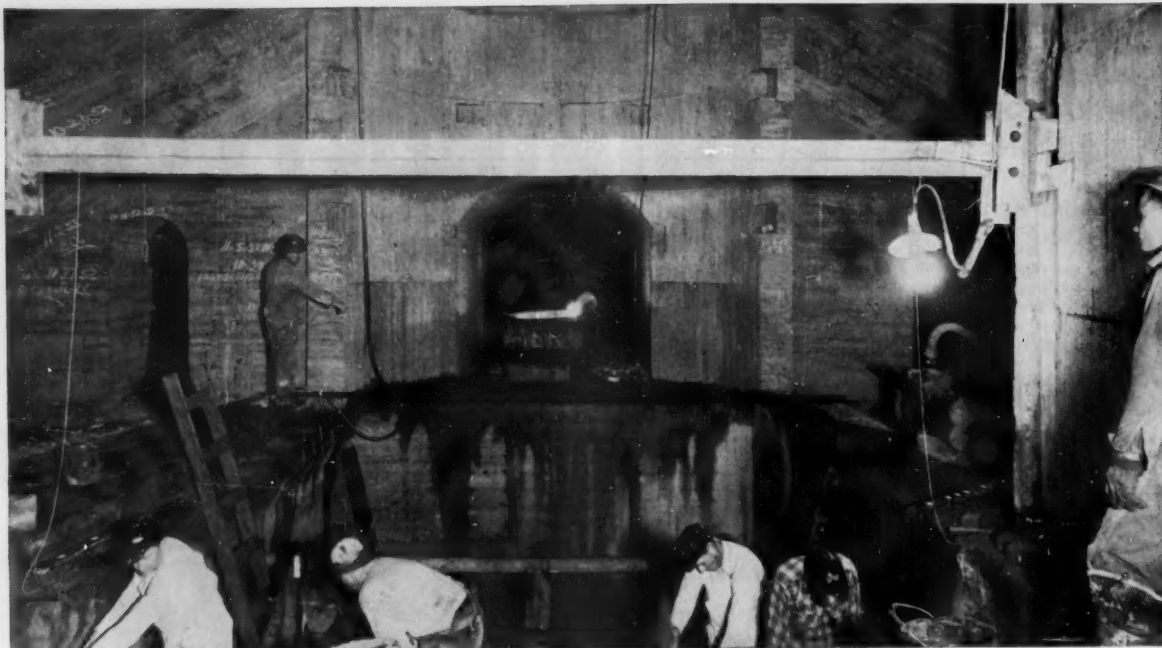


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YOUR  
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**THE GORMAN-RUPP COMPANY**  
MANSFIELD, OHIO





Concrete shaft lining at Bowlby Shaft, No. 2 Mine Butts, Robena Mine, Greene County, Pa. Contractor: R. G. Johnson Company, Washington, Pa. Forms are removed in the sump and bottom arches.

## Contractor Counts on Duraplastic\* For Better Results in Mine Shaft Linings



Pouring the last of the concrete into a 6" pipe to fill bottom arches at Bowlby Shaft.

"We've used Atlas Duraplastic in a large number of shafts and have always had excellent results," says C. H. Dorsey, president and treasurer of the R. G. Johnson Co., Washington, Pa. "Duraplastic helps us overcome the water hazard of shaft sinking. We've found that it gives shafts longer life."

Contractors prefer Duraplastic air-entraining portland cement for general concrete work because it gives concrete superior workability, greater plasticity. This makes placement easier. Work progresses smoothly and rapidly . . . often means savings in both time and money.

Duraplastic minimizes bleeding, or water gain, and segregation . . . forti-

fies concrete against the effects of freezing-thawing weather. Mixes are more cohesive, more uniform . . . less mixing water is needed for a given slump. And concrete made with Duraplastic offers increased resistance to water penetration. No wonder so many contractors are specifying Duraplastic for all their construction jobs.

**YET DURAPLASTIC COSTS NO MORE!** It sells at the same price as regular cement and requires no unusual changes in procedure. Complies with ASTM and Federal Specifications. For descriptive booklet, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Avenue, New York 17, N. Y.

OFFICES: Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

\*"Duraplastic" is the registered trade-mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.



# DURAPLASTIC

AIR-ENTRAINING PORTLAND CEMENT



**Makes Better Concrete at No Extra Cost**

UNITED STATES STEEL HOUR — Televised alternate weeks — See your newspaper for time and station.

and Home Finance Agency. *The Constructor* in July published results of a survey of A.G.C. members concerning the modular coordination method, and has planned a series of articles on the subject to help promote a better understanding of the problems involved among contractors, architects, and materials producers.

The A.I.A.-A.G.C. committee will meet in St. Louis immediately following the board meeting. One of its foremost projects is stimulation of the formation of more local joint committees, and substantial progress has been noted at the chapter and state levels.

A subcommittee of the Producers' Council-A.G.C. Joint Cooperative Committee has reviewed and screened educational materials prepared by building materials manufacturers for use by chapters. A list of the approved presentations on uses of new building materials has been distributed to all building chapters, and supplementary lists will be added periodically.

**Apprentice Training.** A continuing activity in the building field is the promotion of programs to attract more young men into construction work.

A survey recently was conducted among A.G.C. building contractors to determine what members and key company personnel had started as apprentices. The results were published in the *July Constructor* and reprinted as the result of demand. More than 2,500 reprints were requested by the Bureau of Apprenticeship for distribution to its field offices and to meet other requests.

Cooperative promotional work with other organizations has been approved by the committee, and currently a joint activity is being developed in the bricklaying field with the Structural Clay Products Institute.

**Research.** The association contributes to and participates in work of the Building Research Institute on specific projects, and of the Building Research Advisory Board on broad research conferences. Both are agencies of the National Research Council.

Currently the possibility is being explored of expanding and improving Weather Bureau forecasting service. Needs of building contractors are being determined.

In October the B.R.I. will conduct a conference on the advantages and problems of using plastic materials in building construction, in which the A.G.C. will participate. In November the A.G.C. will be co-sponsor of a B.R.I. conference on modular coordination.

## Highway Construction

Increasing public recognition of the country's needs for adequate highways is initiating the largest highway construction program in the nation's history.

The greatest recent event in this field was the Federal-Aid Highway Act of 1954 which authorizes \$966

million annually in federal expenditures during the two fiscal years beginning July 1, 1955, compared with the current \$662.5 million a year. A proposal by President Eisenhower for an additional \$50 billion highway program over a 10-year period to catch up with needs is gaining momentum. A toll road boom is in progress.

In addition, the federal-aid airport program has been reactivated on a modest scale.

Highway volume in 1954 is expected to exceed 1953 expenditures by at least 15 per cent, with new construction approaching a total of \$3¼ billion.

The Highway Contractors' Division has been active in market promotion, participation in seeking sound highway financing policy, and in seeking improvements in specifications. Members and chapters have been informed of major developments. A roundtable meeting of highway contractors will be held during this board meeting.

**President's Proposal.** At the Governors' Conference in July, President Eisenhower, through an address delivered by Vice President Nixon, asked for prompt consideration of a new \$50 billion highway construction program—in addition to the present program—over the next 10 years, so that he could submit recommendations to the next Congress.

After a meeting of a special committee of governors August 10 in Washington, D. C., its chairman, Governor Walter J. Kohler of Wisconsin, reported general agreement on the need for increasing highway construction, but indicated that the \$50 billion cost was not a hard and fast estimate. The committee currently is investigating needs of the states, and will meet again this fall.

On August 30, the President appointed General Lucius D. Clay, chairman of the board of the Continental Can Company, as chairman of a new Advisory Committee on Highway Improvements, whose purpose will be to make recommendations on how to carry out the new "catch-up" program. Members of the committee, which is to report to the President before January, are representatives of the construction and equipment industries, banking, and labor.

**Federal-Aid Act.** Public Law 350, signed May 6, represents a new landmark in highway financing, and is the result of sustained efforts on the part of highway officials, organizations and industries concerned with highway construction, and members of Congress to bring federal expenditures more nearly in line with needs and with state outlays.

Annual authorizations for the federal-aid systems total \$875 million for fiscal years 1956 and 1957, exceeding current matching funds by \$300 million. Funds for roads on federal lands are increased from \$77.5 million

to \$81 million a year, but the authorization for the Latin American highways remains at \$10 million annually.

The major change in construction policy is the increased emphasis on the interstate system, for which \$175 million a year is authorized, compared to the present \$25 million, with the government providing 60 per cent and the states 40 per cent. On other federal-aid systems the 50-50 matching basis is retained.

One-half of the interstate funds will be apportioned to states according to population, and the remaining \$87.5 million a year will be distributed one-third on the basis of area, one-third on population, and one-third on post road mileage. This latter formula governs apportionment of all the remaining federal-aid funds.

A new provision requires sworn statements from contractors on federal-aid construction certifying that they have not entered into any agreement or participated in any collusion or restraint of free competitive bidding on such contracts, making collusion to defraud a federal criminal offense.

The increased authorizations come close to recommendations of the American Association of State Highway Officials, which were supported by the A.G.C. in convention resolutions, and in testimony before Congressional committees.

**Needs Studies.** In addition to current studies by the Governors' Conference and the President's advisory committee, a special committee of the Commission on Intergovernmental Relations has completed research on problems of highway federal aid.

The new highway act also directed the Commerce Department to study the cost of completing the several highway systems and the progress and feasibility of toll roads, with particular attention to their effects on the federal-aid program.

Studies also are being conducted by a new Subcommittee on Highway Development of the United States Chamber of Commerce, which has A.G.C. representation. It operates under the Construction and Civic Development Department, of which A.G.C. Past President M. W. Watson is chairman.

**Market Development.** A series of articles running currently in *The Constructor* has proved beneficial in stimulating maintenance operations by contract in the states, and in promoting the contract method among counties. Reprints have been distributed broadly.

Of interest to highway contractors in addition to the highway and airport appropriations are authorizations for the Rural Electrification Administration to spend \$135 million on electrification and \$75 million for telephone systems in the fiscal year begun July 1. An additional \$35 million may be used in the electrification program if needed, plus substantial carry-over funds.

**Cooperative Work.** National and regional meetings of the Joint Cooperative Committee of the A.A.S.H.O. and A.G.C. have been held this year, in which A.G.C. chapter and branch officials have participated. It will meet September 30 in Nashville, Tennessee, at the Southeastern Association of State Highway Officials convention, and on November 10 at the national A.A.S.H.O. convention in Seattle.

The Joint Cooperative Committee of the National Association of State Aviation Officials and A.G.C. also has done much work in connection with reactivation of the airport program. It met September 21 in Seattle in connection with the annual convention of the N.A.S.A.O.

**Bureau of Public Roads.** Since taking office, Commissioner Francis V. duPont has expedited the agency's work and streamlined its activities. Authority has been shifted from the division offices to the district office level, and many personnel changes have been made.

## Heavy Construction

Heavy construction is continuing at a high level, and should come close to the 1953 total volume, despite declines in federal outlays.

The private public utility market is continuing at peak levels, and more than \$4.5 billion is expected to be put in place during the year with most categories, except railroads, participating in the increase. A decline of 13 per cent is expected in private industrial construction, some of which is heavy.

In the public field, sewerage and water construction should hit a new high of \$1 billion, and a slight increase is anticipated in industrial (principally atomic energy) work, a part of which is heavy construction. Declines of 10 per cent are expected in the conservation and development field, and of 20 per cent in military and naval construction which includes a large share of heavy work.

The Heavy Construction and Railroad Contractors' Division has taken action on many subjects affecting this type of construction, and has kept chapters and members informed of major market developments. Roundtable discussions of particular problems will be held during this meeting.

**Change Orders.** The 35th annual convention recommended that government agencies and general contractors "cooperate fully in handling expeditiously any change orders or disputes that may arise in connection with their contracts."

The A.G.C. Task Units on Corps of Engineers, Bureau of Reclamation, and Bureau of Yards and Docks specifications at recent meetings submitted recommendations for speeding up the process of handling change orders and disputes. The association has advocated more ex-



tensive use of two-part change orders for extras, the first part of which would be a directive to perform the work, with a proviso that an equitable adjustment of the contract price and completion date would be made in the second part. In cases of disputes, observance by all parties to the contract of a time schedule allowing a maximum period of time for the processes involved was recommended.

The reaction of government agencies has been favorable, and a satisfactory settlement of the problem is expected at an early date.

Much beneficial work in the heavy specifications field has been accomplished by the various task units in cooperation with government officials. Expansion of the Corps of Engineers' Unit's activities is described in the Contracts and Specifications section.

**National Water Policy.** The Administration is moving toward establishment of a national water policy to coordinate federal participation in resource development.

On May 26 President Eisenhower appointed a Cabinet Committee on Water Resource Policy to undertake an extensive review of all phases of water resources and report to the White House by December 1, 1954. Members are the Secretaries of the Interior, Defense, and Agriculture, assisted by other agency heads, who also will consider recommendations of the Hoover Commission on Organization of the Executive Branch, which has been studying the same problem.

The President also approved the establishment, as proposed by the Interior Department, of an Inter-Agency Committee on Water Resources, composed of the Departments of Interior, Agriculture, Commerce, Health, Education and Welfare, Army, and the Federal Power Commission, with the Labor Department as an associate member.

The Hoover Commission's Task Force on Water Resources and Power has held a series of hearings, during which the Chattanooga Chapter of A.G.C. presented testimony relating to the undesirability of river basin development by authorities patterned after the Tennessee Valley Authority. This committee is slated to report to the White House by the first of the year.

**Local Participation.** The Administration has consistently sought more local participation in resource development. This policy was strongly expressed by the President on the occasion of his signing the omnibus navigation and flood control authorization bill September 3, when he stated, in part: "My requests for appropriations authorized by this act will give precedence to projects in whose costs local interests are required appropriately to share."

Another development along this line is Public Law 566 which authorizes the Secretary of Agriculture to work

with the states and local conservation agencies for development of flood control and other facilities.

## Accident Prevention

The association as a whole, through increasing cooperation of A.G.C. members and chapters, and work of the Accident Prevention Committee, is in the midst of a period of great expansion in effective accident prevention activity.

Interest in the A.G.C. program is becoming increasingly evident among the chapters and branches and among the members individually. Concrete results of this cooperative program now are becoming evident to the casualty companies who write workmen's compensation insurance for A.G.C. members, and also to those who award construction contracts.

One example of the effectiveness of the program is a letter received by the national office in June from the Office of the Chief of Engineers, Department of the Army, reporting that the construction accident experience of the Corps of Engineers in 1953 was the best in its history. It added: "The safety program promoted by your association undoubtedly contributed much to this accomplishment. We in the Corps greatly appreciate the efforts of the A.G.C. headquarters staff and those local chapters and member contractors who participate in the program."

**Accident Forms.** More and more members are cooperating in using the A.G.C. form to determine the frequency and severity of their accidents. These forms are tabulated so that all cooperating members may compare their records with others, and can measure the effectiveness of their individual programs. Many general contractors have undertaken measures which daily are resulting in the saving of lives, in the prevention of injuries, and in reducing losses of money by disruption of work schedules when there are accidents. Their reports are needed to broaden the statistical base for measuring the effectiveness of accident prevention activity in the construction industry.

For the reporting year ending September 30 there will be an estimated 25 per cent increase in the number of members filing reports with the national office, compared to last year. Based on past experience, about 500 merit awards for outstanding records will be presented at the next annual convention.

**District Committees.** Early this year President MacLeod enlarged the Accident Prevention Committee with a view toward further decentralizing safety activities. In addition to the chairman and vice chairman, two members were appointed from each A.G.C. District.

Subsequently, a District Accident Prevention Com-

mittee was created in each district. These groups are, in effect, joint committees with membership consisting of the two national committee members from the district; the district representative from the safety liaison committee of the Secretaries' and Managers' Council; and two local safety engineers representing the Associations of Casualty Insurers, stock and mutual companies.

The chief function of these 12 committees is to act as liaison between the national Accident Prevention Committee and the districts in promoting safety programs among the chapters and members.

**Safety Teamwork.** A.G.C. national activity in accident prevention is set up on a teamwork basis with many groups. The national committee works with a committee of safety engineers of the Associations of Casualty Insurers and the A.G.C. Secretaries' and Managers' Council liaison committee. These committees, which are implementing the national program and providing assistance to chapters and branches, held two full days of meetings prior to this board meeting.

The association is continuing to cooperate in safety programs nationally and locally with other organizations. More than half the members of the Executive Committee of the Construction Section, National Safety Council, are from A.G.C. firms or the national and chapter staffs, and many are to participate in the section's program during the National Safety Congress in Chicago, October 18-19. Official A.G.C. representatives on various committees participated in the President's Conference on Occupational Safety which convened in Washington, D. C., last spring.

Materials to assist chapters in carrying out their safety programs are being mailed each month to "chapters conducting an accident prevention program." The cost of this service, which is furnished by the N.S.C., is being paid for by the national association. Comments from chapters and branches are solicited as to the value of this service.

It is becoming more evident that one of the most effective means of providing accident prevention service to most A.G.C. members is through chapter programs. Consequently, current efforts are being directed toward strengthening chapter and branch programs already under way, and encouraging establishment of others. The safety activities of both members and chapters should be further developed and made known to demonstrate that effective accident prevention can be, and is being carried out voluntarily by the industry.

The association next month will receive the National Safety Council's Association Safety Award for the second time. In June, *The Constructor* won its third Public Interest Award from the council for its work in carrying forward the A.G.C. accident prevention program.

## Public Relations

The primary purpose of the association's public relations program is to make activities of the association a more effective assurance to the public of the skill, integrity and responsibility of its members. A sound program can be developed only by sound actions of the association.

Its success depends more upon the coordinated actions of the individual members, the chapters, and of the collective association than upon the actual techniques of making the A.G.C.'s activities more widely known.

Activities of the public relations staff are closely tied in with work of the entire staff on particular problems in such fields as legislation, industry relations and market development, and in specific promotions such as accident prevention and apprentice training.

**The Constructor.** For several years publication of *The Constructor* has required the major portion of the public relations staff's time.

Recognizing this fact, efforts are being made to increase use of appropriate features and other articles in the magazine as reprints in public relations activities.

The magazine has grown in size and stature since its redesign and departmentalization in 1949. The nature of its articles has increased recognition of both *The Constructor* and the association. Many requests are received for reprints, or for permission to quote articles appearing in the magazine.

The July directory issue, which published authoritative articles in several fields, has attracted more response than any issue yet published. About 25,000 reprints were made of nine articles in this issue in response to requests by chapters, members, government agencies and others. They included authoritative articles concerning the St. Lawrence Seaway, National Labor Relations Board, the Wage and Hour Law, apprentice training, accident prevention, judicial review legislation, and maintenance by contract.

Requests for the St. Lawrence Seaway article, reaching nearly 5,000, ranged from engineers, contractors, Congressmen, materials and equipment manufacturers, surety companies and officials for the project itself, to banks and the Library of Congress.

Many chapters have found *The Constructor* a valuable part of their public relations program by taking out subscriptions for persons influential in the award of contracts, and for others with whom they cooperate in the industry.

**Other Publications.** The *National News-Letter* has been published at least monthly since 1949 to bring information promptly from the national office to the membership on major developments affecting their operations.

Care is given to the design and printing of the various A.G.C. documents which are published from time to time, so that they can effectively carry out their purposes.

**Advertising.** The association's paid advertising has been a small but economical program of bringing messages to large audiences. The advertisements are directed toward select groups who have influence in the award of construction contracts.

The latest advertisement, carried last spring in 14 periodicals reaching more than 3 million people, was entitled, "America's community needs . . . They can be met now." The advertisement tied in with figures in the President's Economic Report to Congress as minimum annual community construction needs.

Reprints of advertisements in two colors are always made available to chapters, branches and members without charge, and also, at nominal costs, electrotypes and mats suitable for magazine and newspaper reproduction.

**Chapters.** Efforts are made to channel information and public relations materials through the chapters and branches. This includes press releases, literature, reprints of appropriate *Constructor* articles, and other promotion pieces.

A large number of reprints from recent *Constructor* articles has been ordered by many chapters which have expanded their distribution lists.

The staff, in addition to distributing material to national lists, has experimented in adapting certain promotional articles for local use by chapters, including suggested speeches and radio talks. An example of this was a "kit" based on an editorial in the June *Constructor* entitled, "A Time to Build."

This editorial, which was sent to editors of major newspapers, was quoted, with credit to the magazine and the association, on the editorial pages of such newspapers as the *St. Louis Post-Dispatch*, the *Washington Post and Times Herald*, and the *Hartford Courant*.

**Education and Research.** With the industry's growing size, there are increases in requests for information from educational and other sources.

Study is continuing on how to meet demand for basic information about the industry in the form of teaching materials for high schools, and on ways to centralize the research data gathered by the association.

Chapter activities are increasing in the educational field in the forms of scholarships, endowments, lectures, safety and superintendents' courses, and work directed toward construction courses.

The Public Relations Committee reviewed the association's public relations program prior to this meeting.

## Association Affairs

The importance which construction activity has assumed in the economy of the nation and its communities, and the prominence which the association has achieved locally and nationally, have placed a continuously heavier burden of responsibility upon the national association and the chapters.

This responsibility has increased the work load of the national association and the chapters to a point at which serious consideration must be given to additional activities which might be undertaken.

As the volume of construction has increased, as the number of association members has increased, and as the conditions which confront general contractors become more complex, it is inevitable that the association must adapt its operations and policies to changed conditions and harmonize conflicting opinions.

The men responsible for management and direction of the association have recognized that the association can be most effective when it channels its efforts so far as possible into activities directly affecting the construction industry and the operations of general contractors.

They have also recognized that association actions are most effective when they are for the general benefit of members, the industry, and the public, and have the unified support of the membership.

**Governing Provisions.** In order that the association's Governing Provisions might be clarified, simplified, brought into conformity with current practices, and fit the association's purposes most effectively, a comprehensive review has been underway for the past year.

The recommended revisions have been printed and will be presented to this meeting for action in accord with a resolution of the 35th annual convention which granted the boards "special authority . . . to review, rearrange, edit, clarify and reissue" the Governing Provisions subject to final action by the 36th annual convention.

**A.G.C. Program.** The officers and Executive Committee have been in constant contact with the association's program. The officers have traveled extensively in visiting chapters and making other appearances on behalf of the association. The Executive Committee met in May and in July to review the A.G.C. program.

Notable cooperation has been received from the chapters and branches, committee chairmen and the membership in carrying out an effective legislative program.

**Chapters and Branches.** In their respective communities the chapters and branches continue to do increasingly effective work. Presidents, vice presidents and others have been continuously more active in participation in national association affairs.



**Secretaries' Council.** The A.G.C. Secretaries' and Managers' Council meetings are important forums for exchanging information on successful chapter management, and on the effective execution of the A.G.C. program locally. The council's liaison committee with the Accident Prevention Committee which recently was expanded, and the liaison committee with the Public Relations Committee are valuable in helping to coordinate these activities. The council held a day-long meeting preceding this board meeting.

**Executives' Conference.** The second annual shop-talk conference of members of the chapter and national staffs was held in Chicago in June with more than 80 executives participating. These conferences, which are held to discuss means of carrying out the association's program, have proved helpful to both chapter and national staffs.

**National Office.** Additions and changes in the national staff, previously approved by the Executive Committee, have enabled members of the staff to attend a greater number of chapter and regional meetings, in addition to carrying out a large volume of regular work.

The Executive Committee put into effect on June 1 an insurance and pension program for eligible members of the national staff, as instructed by the 35th annual convention. The plan is available for adoption by chapters and branches for members of their staffs.

**Affiliated Units.** Since 1947 the association has co-operated in the Army Affiliation Program under which A.G.C. chapters and branches sponsor reserve construction units in which each man is specially qualified for his military assignment by his civilian work.

Some of these units have performed outstanding engineering feats in Korea, and others have served overseas elsewhere. Many have been praised by the Army for outstanding records in training duty. These units have provided a most effective means by which the Army and the contracting industry could cooperate to provide construction reserve units available for action when needed.

There are now 61 units sponsored by A.G.C. chapters. Since the truce in Korea 15 units have been discharged from service or disbanded for other reasons. At the suggestion of Army officials, the A.G.C. has conducted a survey to reveal the main obstacles being encountered by the units. Recommendations resulting from the survey will be presented to the Army.

With world tension mounting, reserve strength is an increasingly important factor in national defense preparedness. The A.G.C. is the largest single contributor to the affiliation program.

**Education.** An Education Committee is the latest committee formed by the association. It met initially prior

to this meeting. The committee will give consideration to such subjects as the type of training contractors recommend for young engineers, cooperation with architectural and engineering schools by the national association and chapters, means of developing through education more trained manpower for the industry, and providing information about the industry to educators.

**Equipment.** The standardization programs of improving contractors' pumps and concrete mixers have been continued by the Mixer Manufacturers' Bureau and Contractors' Pump Bureau, affiliated with A.G.C.

The association maintains close contact with the machinery industry through the Joint Cooperative Committees with the Construction Industry Manufacturers Association and Associated Equipment Distributors. The C.I.M.A.-A.G.C. committee will meet in connection with this meeting.

## **Conclusion**

Construction activity has continued to establish successive records in the volume of work performed.

During this period of general business adjustments to changing market conditions, construction has received wide public recognition as the brightest spot in the national economy. Due to the leveling off in general business activity and the rise in construction volume, more than one out of every seven dollars spent in the United States for goods and services now is being spent on construction.

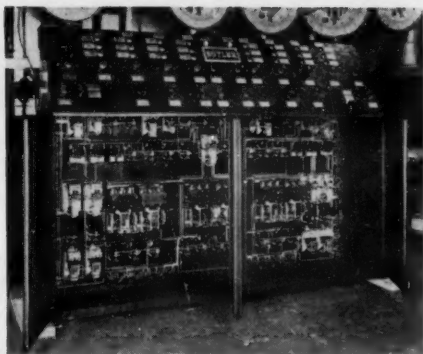
This places increasing responsibility upon the industry as a whole, calling for cooperation among its various segments, including labor.

For the association, it means continued expansion of national and chapter programs for the good of the industry, its members, and the public, and constant examination of its policies as representative of the general contracting profession.

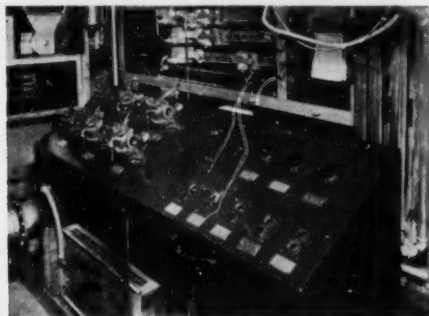
For the individual general contracting firm it requires attention to its everyday operations so that they are conducted efficiently, economically, and ethically. In some cases individuals from member contracting firms are making financial sacrifices to take government positions requiring the construction knowledge developed to such a high degree in a successful contractor.

Once again the association is able to report positive actions, and many accomplishments in accord with policies recommended by the convention, the Governing and Advisory Boards, the Executive Committee, and the officers.

The elected and appointed representatives of A.G.C. members have the opportunity at this meeting to review the association's program and to make recommendations governing its work in the future.



Above. A highly automatic Butler control console interlocked electrically to foolproof precision in batching infinite combinations of 8 materials.



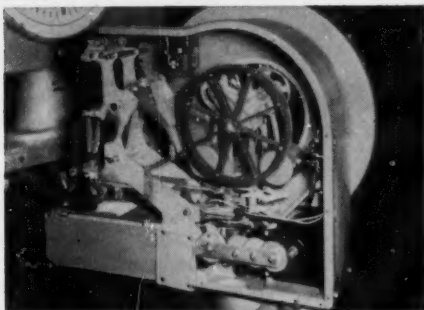
Here push-button control with air operated aggregate filling and discharge gates provide labor-saving assurance of uniform batch quality.



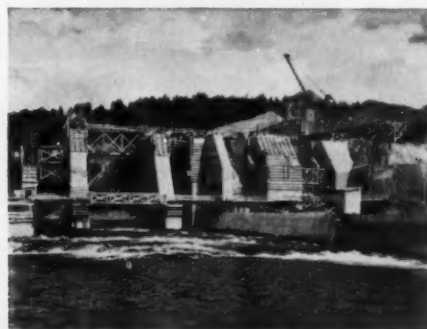
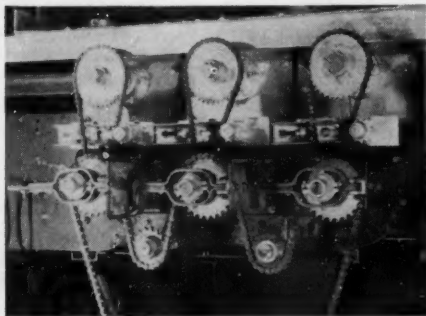
Plant under construction provides view of compact, well engineered batcher and mixer arrangement.

## HIGH AUTOMATION Pays Off in Concrete Production

Butler provides automatically a printed record of every batch for the owner and his customers.



In many Butler plants air-operated clutches open gates to select any one of three types of cement.



Butler Central Mixing Plant on New Brunswick Dam job. This is one of many Butler plants used on Canada's huge hydro-electric expansion.

Automatic batching — whether for the highway or the ready mixed industry — has proved itself in elimination of wasted materials, sharp reduction of labor costs and faster production. Butler engineers have achieved high automation to bring concrete production in line with the economies of electronic controls in other industries. Existing ready mixed concrete or road builders plants can be easily and economically revised for automatic operation and, of course, new plants are readily engineered for highest efficiency at any production level.

### Butler Bin Co.

953 BLACKSTONE AVENUE  
WAUKESHA, WISCONSIN

## A.G.C. Branch and Chapter Meeting Dates

A MONTHLY, cumulative list of annual meetings scheduled by chapters and branches of The Associated General Contractors of America, as reported to THE CONSTRUCTOR:

Oct. 12. Connecticut State Chapter. Cheshire. Waverly Inn.  
 Oct. 30. New Mexico Building Branch. Albuquerque. Hilton Hotel.  
 Nov. 14-16. Carolinas Branch. White Sulphur Springs, West Virginia, The Greenbrier.  
 Nov. 18. Chicago Builders Chapter. Chicago. Builders Club.  
 Nov. 20-23. Indiana Highway Constructors, Inc. French Lick. French Lick Springs Hotel.  
 Nov. 30-Dec. 1. New York State Chapter, Inc. Buffalo. Hotel Statler.  
 Dec. 1. Waco Chapter. Waco. Elite Cafe No. 2.  
 Dec. 1-2. Wisconsin Chapter. Milwaukee. Plankinton Hotel.  
 Dec. 3. Northern California Chapter. San Francisco. Palace Hotel.  
 Dec. 5-7. Municipal Contractors Association. Dallas. Baker Hotel.  
 Dec. 5-7. A.G.C. of North Dakota. Minot. Clarence Parker Hotel.  
 Dec. 6-7. A.G.C. of Illinois. Springfield. Leland Hotel.  
 Dec. 7. Austin Chapter. Austin. A.G.C. Plans Room.  
 Dec. 7. Dallas Chapter. Dallas. Dallas Athletic Club.  
 Dec. 7. Associated Building Contractors of Colorado, Inc. Denver. Albany Hotel.  
 Dec. 7-8. Master Builders of Iowa. Des Moines. Savery Hotel.  
 Dec. 9. Memphis Chapter. Memphis. Gayoso Hotel.  
 Dec. 10. South Texas Chapter. Corpus Christi. Nueces Hotel.  
 Dec. 14. Seattle Chapter. Seattle. Chapter Office.  
 Dec. 15. A.G.C. of Massachusetts. Boston. Hotel Kenmore.  
 Jan. 4. Toledo Chapter. Toledo. Commander Perry Hotel.  
 Jan. 4-5. A.G.C. of Missouri. Kansas City. President Hotel.  
 Jan. 10-11. Portland Chapter. Portland. Multnomath Hotel.  
 Jan. 11. Master Builders Association. District of Columbia. Mayflower Hotel.  
 Jan. 12. Lake Charles Chapter. Lake Charles. Green Frog Restaurant.

Jan. 12-13. Kansas Contractors Association, Inc. Kansas City. Muchlebach Hotel.  
 Jan. 12-13. Nebraska Chapter. Lincoln. Cornhusker Hotel.  
 Jan. 15. Oklahoma Builders Chapter. Oklahoma City. Skirvin Hotel.  
 Jan. 19. Louisville Chapter. Louisville. Chapter Building.  
 Jan. 19-20. A.G.C. of Iowa. Des Moines. Hotel Savery.  
 Jan. 19-20. Nebraska Building Chapter. Omaha. Hotel Fontenelle.  
 Jan. 21. Mississippi Valley Flood Control Branch. Memphis. Hotel Peabody.  
 Jan. 21-22. Montana Contractors Association. Butte. Finlen Hotel.  
 Jan. 21-22. Colorado Contractors Association, Inc. Denver. Shirley-Savoy Hotel.  
 Jan. 27. Rhode Island Chapter. Providence. Narragansett Hotel.  
 Jan. 27-29. A.G.C. of Minnesota. Minneapolis. Hotel Nicollet.  
 Jan. 27-29. Virginia Chapter. Richmond. Hotel John Marshall.  
 Jan. 28-29. West Virginia Chapter. Charleston. Daniel Boone Hotel.  
 Feb. 9. Tacoma Chapter. Tacoma. Winthrop Hotel.  
 Feb. 10. Contractors Association of Western Pennsylvania. Pittsburgh. Hotel William Penn.  
 March 9. Houston Chapter. Houston. College Inn.

### Tentative Dates

Dec. 2. A.G.C. of South Dakota. Aberdeen. Alonzo Ward Hotel.  
 Dec. 7. Florida West Coast Chapter. Tampa. (Not Selected).  
 Jan. Alaska Chapter. Seattle, Washington. New Washington Hotel.  
 Jan. 7. South Florida Chapter. Miami. Miami Shores Country Club.  
 Jan. 11. General Building Contractors Association. Philadelphia. Barclay Hotel.  
 Jan. 13. Baltimore Builders Chapter. Baltimore. Park Plaza Hotel.  
 Jan. 17. Milwaukee Chapter. Milwaukee. Schroeder Hotel.  
 Jan. 27. Michigan Chapter. Lansing. Hotel Olds.  
 March. Cincinnati Chapter. Cincinnati. Cincinnati Club.  
 March-April. Metropolitan Builders Association. New York City. University Club.  
 April. Buffalo Chapter. (Not Selected).

## Chapter Notes

**Northern California Chapter** of The Associated General Contractors of America has announced the appointment of Frank W. Callahan to be its new manager.

Mr. Callahan who took his post on September 7, is replacing J. Robert Mitsch who joined the Bechtel Corporation, A.G.C., San Francisco. The new manager has been affiliated with the Northern California A.G.C. for seven years. Before becoming a field representative of the organization, he was employed by the San Francisco District of the Corps of Engineers.



Mr. Callahan

The new manager had been previously a labor expeditor for the Pacific Bridge Company, A.G.C., and recruitment officer for the Marinship Corporation.

**The A.G.C. of Illinois** recently named Robert J. Young, Jr., a former state senator from the 50th Illinois district as field and office secretary.

Mr. Young will handle legislative, labor, and safety matters for the chapter in its Springfield office.

While in the state legislature, in 1951 he was author of the Illinois toll road commission bill which was passed last year.

**The Evansville Chapter** of The Associated General Contractors of America installed new officers for the 1954-55 year on August 1.

Elected to serve through next August are James Lovelace, R. R. Williams Construction and Supply Co., Owensboro, Ky., president; and Marshall Isbell, vice president, Thorp Construction Co., Evansville. Albert J. Sweet was re-elected executive secretary. Mr. Lovelace succeeded H. D. Oldham of the Aalco Construction Co., Evansville.

**D. R. Lyman**, secretary of the Louisville Chapter of the A.G.C., retired Oct. 1 after more than 30 years service, the chapter announced. George C. Long was named the new secretary, replacing Mr. Lyman.



# Wausau Story

by **DON W. DOUGLAS, JR.**,  
Director and Vice President of the Douglas Aircraft Company



"Four young fishermen, happy as skylarks..." Mr. Douglas talks over fishing, scouting and jet airplanes with Kenneth King (left), Alfred King, Jerome Roble and Clarence King (right).

## Employers Mutuals of Wausau are "good people to do business with"

Mr. Douglas speaks of a way of life in Wausau—a good way of living and doing business. This Wausau "personality" extends far beyond Wausau. You will find it in each of this company's 89 offices across the country. It means a fairness that bends over backwards to give our customers the protection and service they expect.

We handle all lines of fire and casualty insurance, and **workmen's compensation**

is our specialty. More than in any other kind of insurance, the cost of workmen's compensation is *controllable*. And the better the insurance company, the more controllable. For example, Employers Mutuals' accident prevention program can mean lower insurance costs for policyholders. An Employers Mutuals man will show you how. Phone our local office or write to Wausau, Wisconsin.

## Employers Mutuals of Wausau



THE CONSTRUCTOR, OCTOBER 1954

What is there about Wausau, Wisconsin, that makes it the ideal home for one of the world's most important insurance companies?

Employers Mutuals invited a leading airplane manufacturer to visit its hometown and find out.

**W**HEN I saw them they were hurrying down the road on their bicycles. Four young fishermen, happy as skylarks. "ANY LUCK?"

They showed me their catch (picture left). Sixteen black bass, real beauties. "We caught 'em in the Eau Claire River," said Clarence King. "We just used worms...scout's honor."

Looking in those vigorous young faces, I could tell a lot about Wausau. It's a good country for kids to grow up in.



Here's just one example of Wausau's progressive spirit. The beautiful Alexander Airport, just a mile or so from the stream where the boys had fished. As I told Ken Schuck, the airline manager (above left), this is as modern and well-equipped an airport as I've ever seen. Wausau is like this...a city of far-advanced industry, yet with the Woods at its doorstep.



I visited the Wausau Boy Scout Day Camp with "Mac" McCormick of the *Record Herald* (above right). The magnificent new field stone lodge was built for the scouts by the citizens of Wausau, who, if they couldn't give money, gave their own time and services to make this building possible.

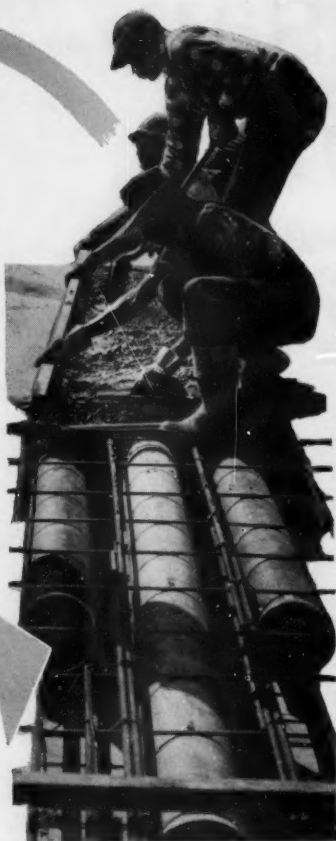
I saw this spirit at work everywhere. It's the spirit, too, of Employers Mutuals. And it accounts for what so many say—that they're good people to do business with.

# Voids save concrete and steel!



## FIBRE TUBES

for voids  
in concrete  
construction



Pouring  
concrete slab  
—Paper mill.

Specifically developed for use in concrete bridge deck, wall, floor and roof slabs, low cost SONOVOID Fibre Tubes eliminate the dead weight without impairing structural strength . . . and save concrete and reinforcing steel.

SONOVOID Fibre Tubes displace the low-working concrete at the neutral axis.

Makes prestressed or poststressed precast units handle easier and cost less.

SONOVOIDS are supplied in specified lengths or sawed to your requirements on the job. Sizes 2" to 36.9" O.D. up to 50' long.

For complete technical  
data and prices, write

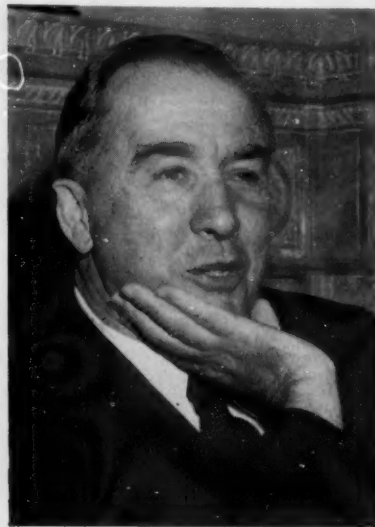
**SONOCO PRODUCTS COMPANY**  
Construction Products Division  
LOS ANGELES, CAL. 1815 SOUTH WESTERN AVE.  
HARTSVILLE, S. C. — MAIN PLANT  
MONTCLAIR, N. J. 14 SOUTH PARK STREET  
GARWOOD, N. J. BRANTFORD, ONT. AKRON, IND.



## MEN AND EVENTS

### Charles E. Daniel, A.G.C., Appointed to U.S. Senate

Charles E. Daniel, president of the Daniel Construction Co., Greenville, S. C., A.G.C., was appointed to the United States Senate Sept. 6 by Gov. James F. Byrnes to succeed South Carolina's late Senator Burnet R.



Charles E. Daniel

Maybank until the election of a successor in November.

In announcing the appointment of Mr. Daniel, whose company is one of the largest construction firms in the Southeast, Governor Byrnes said:

"I have appointed Mr. Daniel because of his splendid qualities and in recognition of the outstanding service he has rendered in bringing into the state new industries which have given employment to thousands of South Carolinians."

Senator Daniel said he would not be a candidate in the November election. The State Democratic Executive Committee has nominated State Senator Edgar A. Brown, of Barnwell, for the full six-year term to which Senator Maybank had been renominated.

In accepting the appointment, Senator Daniel said:

"I realize full well the magnitude of the responsibilities that must be borne by a U. S. Senator in these days of international crisis, even when Congress is not in session. I am glad to have the opportunity of rendering this service to my state.

"To Governor Byrnes and the peo-

ple of South Carolina I pledge my utmost to perform the duties of U. S. Senator in a manner that will reflect credit at all times on the great state of South Carolina."

A native of Elberton, Ga., Senator Daniel early in life moved to Anderson, S. C. He attended The Citadel, South Carolina's military college at Charleston, from which he entered the Army in World War I as a second lieutenant. After the war he was associated with the Townsend Lumber Co. at Anderson, becoming a vice president in 1927. He organized the Daniel Construction Co. in 1935 and established its head office at Greenville in 1941.

Senator Daniel, who is 59, is a brother of R. Hugh Daniel, head of the related Daniel Construction Co. of Birmingham, Ala., A.G.C. He has two other brothers, Earle W. Daniel and James F. Daniel, Jr., both of Greenville.

The new Senator has never sought public office, but has long taken an active interest in politics. A Democrat, he supported President Eisenhower in 1952.

Senator Daniel is a trustee of Clemson College and a member of the board of the South Carolina Foundation of Independent Colleges. He is a director of the First National Bank of Greenville, J. P. Stevens and Co., Inc., the Graniteville Co., the Charleston and Western Carolina Railroad, the American Woolen Co., LaFrance Industries, and W.M.R.C., Inc., operators of Greenville television station W.F.B.C.

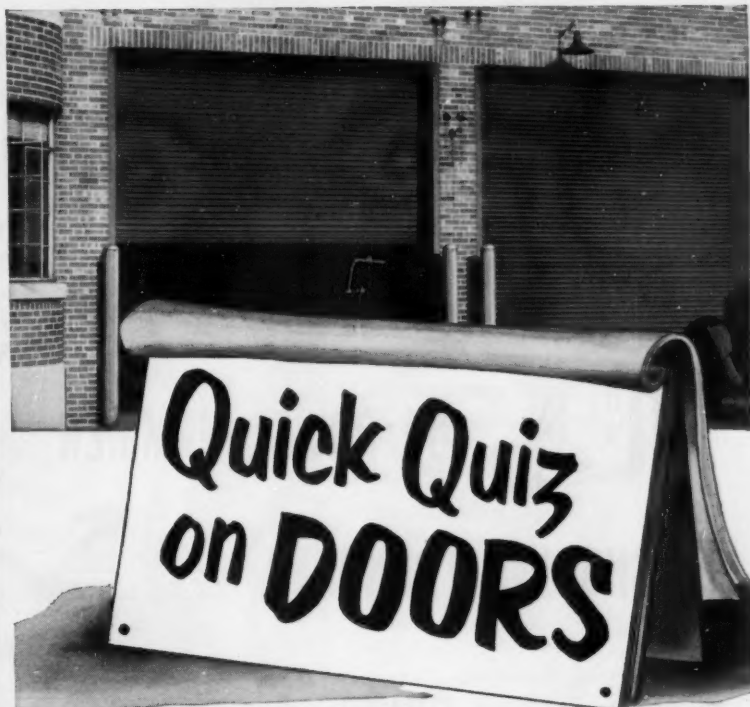
A profile on Senator Daniel, based on his prominent position in the construction industry, was announced for publication in the October issue of *Fortune Magazine*.

### Roland G. Ackmann, 42, Dies

Roland George Ackmann, 42, Roland Construction Co., Dallas, Tex., died on August 23, in Dallas.

A graduate of the University of Illinois, Mr. Ackmann was an active member of the A.G.C. Chapter, especially in apprentice training.

Mr. Ackmann is survived by his wife; a son, Kent Ackmann, a daughter, Adrian Ackmann, both of Dallas; his father, Henry C. Ackmann of Huntley, Ill.; and two brothers, Lowell Ackmann of Peoria, Ill.; and Harold H. Ackmann of Bay Village, Ohio.



**QUESTION:** How can we be sure of door efficiency?

**Answer:** The upward-coiling curtain of interlocking steel slats, originated by Kinnear, is the key to many basic door advantages.

**QUESTION:** How much floor space is taken up by the doors?

**Answer:** You can make full use of all floor and wall space around Kinnear Rolling Doors, inside and outside the opening, at all times. By coiling straight upward, they operate entirely within the space they occupy when closed.

**QUESTION:** Can we run crane or hoist rails and other overhead equipment close to the doorway?

**Answer:** Yes. Kinnear Rolling Doors use no ceiling space, except for the compact hood area into which the curtain coils. This hood can often be recessed in the wall, or mounted outside the building, so that ceiling heights can be held to minimum, cutting building costs.

**QUESTION:** Are the doors easy to operate?

**Answer:** Strong torsion-spring counterbalancing makes even manual-lift Kinnear Doors extremely easy to operate. They are also ideal for motor operation—no lengthy operating cables, no projecting tracks, no bulky mechanism. Push-button controls can be placed at any number of points.

**QUESTION:** What about protection?

**Answer:** Kinnear Rolling Doors guard every opening with a curtain of steel anchored in steel jambs from floor to ceiling—a fire-

resistant barrier against wind, weather, theft, or vandalism.

**QUESTION:** Can we count on low maintenance costs?

**Answer:** Many Kinnear Rolling Doors have been in continuous daily use upwards of 20, 30 and 40 years without repair or maintenance expense, as proved by reports from many users.

**QUESTION:** What about corrosion resistance?

**Answer:** A heavy coating of pure zinc (1.25 ounces per square foot, ASTM Standards) applied by the hot process, gives Kinnear Rolling Doors a highly durable galvanized finish. In addition Kinnear's special Paint Bond, a phosphate immersion treatment, provides for thorough coverage and adherence of paint.

**QUESTION:** What if the doors are damaged?

**Answer:** The steel slat construction of Kinnear Rolling Doors absorbs a lot of punishment. Slat accidentally damaged can be individually replaced any time. Detail drawings of every door are kept in Kinnear's own fireproof vaults.

**QUESTION:** What sizes are available?

**Answer:** Kinnear Rolling Doors are engineered to individual needs, in any practical size (doors several hundred square feet in area are not unusual). They are easily installed in new or old buildings.

In short, you get all the correct answers to long-lasting, low-cost door convenience and efficiency in the famous

## Kinnear Steel Rolling Doors

Write today for full information

The KINNEAR Manufacturing Co.

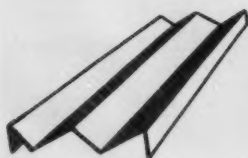
FACTORIES:

650-680 Fields Avenue, Columbus 16, Ohio  
1742 Yosemite Ave., San Francisco 24, Calif.  
Offices and Agents in All Principal Cities



**KINNEAR**  
ROLLING DOORS





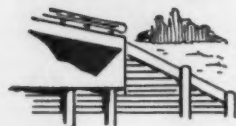
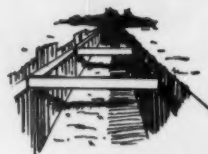
## ARMCO STEEL SHEETING

CAN BE DRIVEN BY MAUL



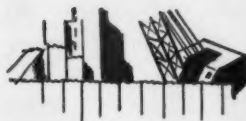
OR POWER HAMMER

IN SHORING TRENCHES,



BRIDGE ABUTMENTS

AND COFFERDAMS,

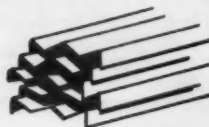


YET



IS EASILY PULLED AND

STORED FOR NEXT JOB.



With the small displacement area of Armco Steel Sheeting, you'll find driving is easy and fast in your construction job. This sheeting is light in weight, yet the deep corrugations provide ample strength. Cost-per-job drops lower with each re-use. For further data, write us, Armco Drainage & Metal Products, Inc., 5064 Curtis Street, Middletown, Ohio. Subsidiary of Armco Steel Corporation.

## ARMCO STEEL SHEETING



### MEN AND EVENTS

#### Walter K. Shaw, 64, Dies

Walter K. Shaw, 64, retired vice president and treasurer of The Turner Construction Co., New York City, died on Sept. 11 after a long illness.

Mr. Shaw spent his entire career with the Turner Company. Upon graduation from Cornell University in 1913 he joined the company as an assistant engineer, and advanced



Mr. Shaw

through various positions until he became secretary in 1930. In 1934 he was elected treasurer and director. He served as vice president and treasurer from 1937 through 1953 when he retired because of his illness.

The deceased participated in a large number of construction projects. Among them was construction of the Alton Dam on the Mississippi River, the General Motors Exhibit at the New York World's Fair in 1939, many industrial plants, and naval air bases in the Pacific. During World War II he was chairman of the Building Division of The Associated General Contractors of America. Also he was a member of the Consulting Constructors Association, the American Management Association, and was associated with the Management Counselors, Inc.

Surviving Mr. Shaw is his wife, the former Alma Burns; two daughters, Mrs. Robert S. Bell of Ardsley, N. Y.; and Mrs. Charles Seton Henry of Madison, N. J.; a son, Walter B. Shaw of Glen Head, L. I.; two sisters, Mrs. Joseph A. Rielly of Forest Hill, L. I.; Miss Fannie Shaw of Jackson Heights, L. I.; and eight grandchildren.

**Francis E. Hubbard, 59**, Hubbard Construction Co., A.G.C., Orlando, Fla., died on July 1.

An engineering graduate of Oak Ridge Institute, Oak Ridge, N. C., Mr. Hubbard founded two construction companies. During World War II he served as a lieutenant colonel in the Army Corps of Engineers.

Mr. Hubbard is survived by his wife, two children, four grandchildren, four brothers and three sisters.

THE CONSTRUCTOR, OCTOBER 1954

# Motorists: here's proof...

Gulf's cleaner-burning, super-refined gasoline solves today's No. 1 engine problem!



## Laboratory tests promised...

... these *immediate* and *lasting* benefits from this new, super-refined fuel:

**More complete** engine protection than from the so-called "miracle-additive" gasolines. Why? Because Gulf refines *out* the "dirty-burning tail-end" of gasoline (the No. 1 troublemaker in high-compression engines)—and then treats this new Super-Refined NO-NOX to give it a *complete range of protective properties*. It protects *every* part it touches against carbon, rust, gum.

**Extra gas mileage** in all your everyday, short-trip, stop-and-go driving.

**No knock, no pre-ignition.** Why? Because the anti-knock power of new Gulf NO-NOX has been stepped up to an all-time high.

**Stall-proof smoothness.** Instant starts, too—and fast, fuel-saving warm-up.

That's why new Super-Refined Gulf NO-NOX gives your engine more power-with-protection than you've ever known.



## Road tests proved...

These cars, powered by New Gulf No-Nox, actually performed better than new... after 15,000 miles!

True! After 15,000 miles per car—covering all conditions of city and country driving—Gulf test cars showed these results:

- Higher-than-new horsepower!
- Better-than-new on gasoline mileage!
- And not a single trace of carbon knock or pre-ignition at any time—even on the steepest mountain grades!



COMPLETELY NEW! SUPER-REFINED

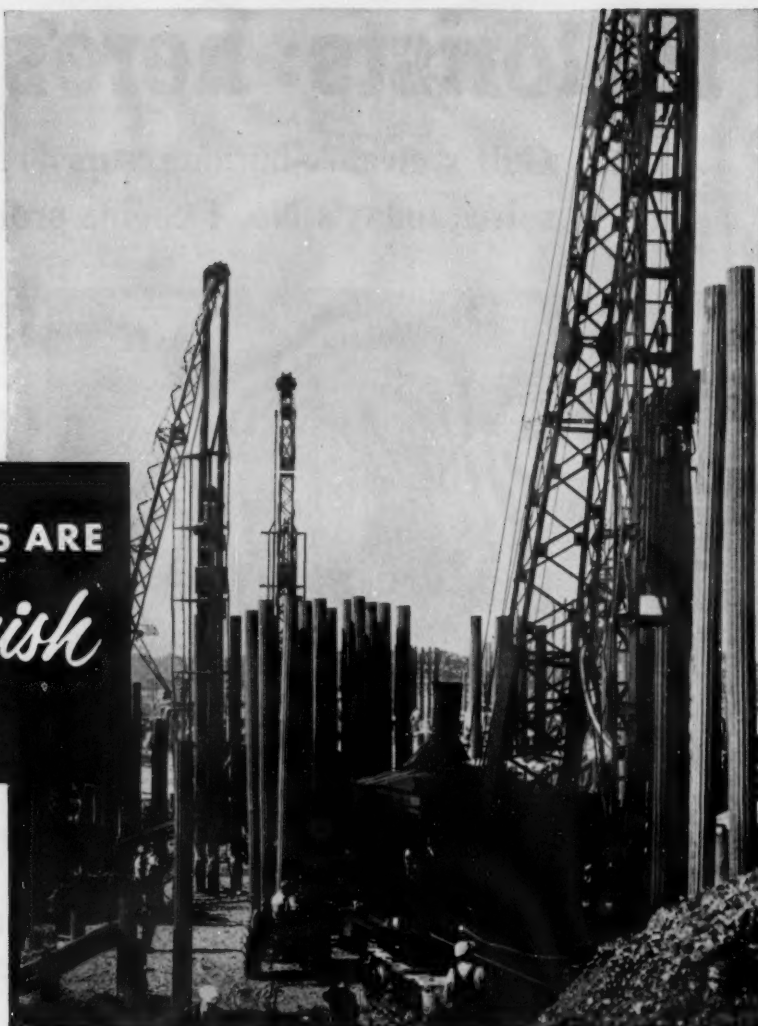
# New Gulf No-Nox

THE HIGH-EFFICIENCY GASOLINE

*Photo example of tough  
driving condition met by  
high strength, cold-rolled  
Monotube piles.*



WHY MONOTUBES ARE  
*Start-to-Finish*  
PILES



**I**N construction work, unanticipated soil conditions can often raise Cain with costs, work schedules and foundation designs. That's when you really value the unmatched versatility of Monotube piles . . . for any job *started* with Monotubes can be *finished* with Monotubes.

For example . . . you have a choice of gauges, gauge combinations, tapers, diameters or lengths. Other factors bearing on easy job completion with Monotubes are: simplified weld-splicing in the field to almost any required length; cold-rolled construction for exceptional strength; and top-to-bottom visual inspection before concreting.

Why not get *all* the facts on how Monotube piles offer you an unusual margin of assurance, safety and *economy*? Write to The Union Metal Manufacturing Co., Canton 5, Ohio, for Catalog No. 81.

*Monotube Foundation Piles*

**UNION METAL**



» Euclid Division of General Motors announced its entry into crawler tractor market Sept. 15 with preview of twin-engine 380 h.p. model at GM proving ground at Milford, Mich. Newsmen, distributors and GM officials were on hand to watch 53,000-lb. experimental model go through its paces. Model TC-12 crawler is first of projected line.

It is powered by 2 190 h.p. GM diesel six-cylinder engines, each driving Allison torque converter and Allison "Torqmatic" transmission. Each drive train independently powers one track. Final drive gearing is same Euclid planetary used in off-highway 50-ton dump trucks and 25-yd. bottom-dump wagon. Two separate drive and track assemblies are free to oscillate on 7" transverse shaft. Movement of 7" is limited by stops welded to each frame half. Tractor is designed to provide higher power-to-weight ratios. Maximum draw-bar pull is almost equal to tractor weight with working accessories.

There are 2 transmissions each with integrally mounted torque converter. Crawler tractor transmission, made by GM's Allison Division, provides 3 speed ranges forward and 3 in reverse. All shifting is accomplished under full power. There is no master clutch. Tractor can be shifted from one speed range to other without loss of motion and can be shifted into reverse while still going in forward direction. Top speed is 8 m.p.h.

Tractor can be steered in several ways: by increasing or decreasing speed of one engine for gradual change in direction; by putting one transmission in neutral and applying track brake; by putting one transmission in forward and other in reverse for rapid, sharp turns.

Tractor can be dismantled and re-assembled with ordinary service-men's tools. Engines are mounted side by side, and drive through universal joints and drive shafts to torque converter, which is located below and to rear of operator location. Reduction drive gears for each half of tractor transmit power through axle shaft to sun pinion and 3-gear set of planetary, located within drive sprocket. TC-12 can be almost completely dismantled without removal of roller frames. Experimental track tensioning device, based on hydraulic principles, is being tested.

Four tractors displayed at Milford

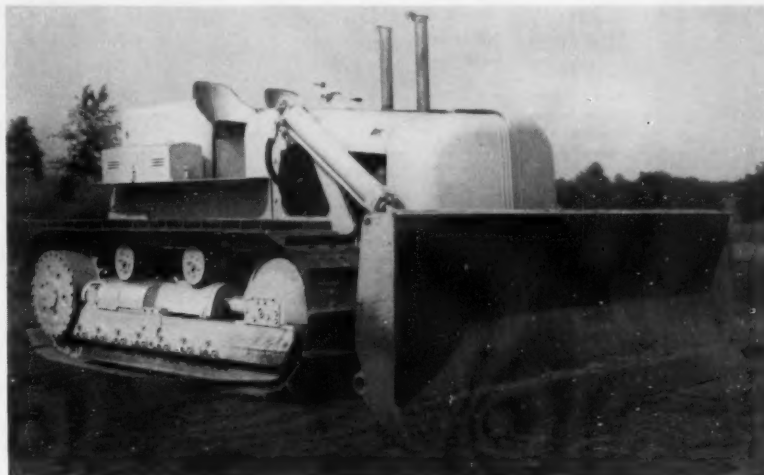
## Euclid Introduces 380 h.p. Crawler Tractor

were equipped with push plate for scraper loading, hydraulically controlled 13½' bulldozer blade, 17' 3" angledozer blade and pull yoke for Euclid loader.

GM's Electro-Motive Division plant in Cleveland has been transferred to Euclid Division for manufacture of new earth-moving equipment product. It more than doubles Euclid's present facilities.

Three new experimental rubber-tired scrapers were introduced at preview. Model S-7 is 7-cu. yd. struck capacity overhung engine unit, powered by 138 h.p. GM diesel engine. It has 90° hydraulic steering, 5-speed transmission, 3 independently oper-

ated hydraulic scraper controls and 4-section interchangeable, reversible cutting edge. S-18 is 18 cu. yd. overhung machine with 300 h.p. GM engine series 6-110 used in conjunction with Allison "Torqmatic" converter and transmission. TS-18 is overhung engine twin power scraper with 2 190-h.p. GM diesel engines, one in tractor and other located behind scraper bowl driving rear wheels. They drive through Allison "Torqmatic" converters and transmissions. Bowl is 18 cu. yd. struck measure. Operations of bowl lift, apron and ejector are hydraulically controlled independently of each other. With 90° steer, scraper makes 180° turns in 35'.



TC-12 with push plate for scraper loading



Big tractor in action

# Sasgen

## DERRICKS

## HOISTS

## WINCHES

**50 Years**  
EXPERIENCE AS  
MANUFACTURERS OF  
CONTRACTORS'...

- Easily rigged on the job
- Conservatively rated for safety
- Simple in design, low on maintenance



**LIFTOMATIC**—new, low cost answer to hoisting problems. Features automatic stops, remote control and positive safety device as standard equipment. 1200 lb. live load capacity... lifts to 110 ft. Uses gas or electric power, which can also serve other hoists.

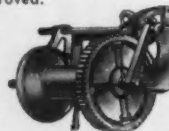
### SAFETY SCAFFOLD WINCH

Swing stage type. Safest for suspended scaffolding. UL Approved.



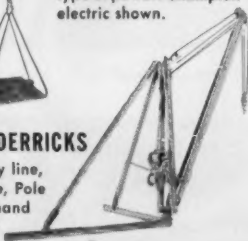
### HAND-POWERED WINCHES

Safe worm or spur gear design. Sizes for 400 to 40,000 lb. load. No. 110 shown.



### ROOFERS' CIRCLE SWING DERRICKS

360° operation. 500 to 2500 lb. capacities. Optional type of power. Champion electric shown.

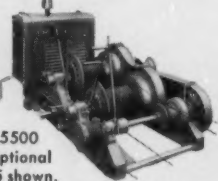


### STIFF LEG DERRICKS

All types—guy line, setter, A-frame, Pole and Tripod—hand and/or power operated.

### CONTRACTOR'S HOISTS

Single or double drum types with capacities from 500 to 5500 lb. single line pull. Optional type of power. DD55 shown.



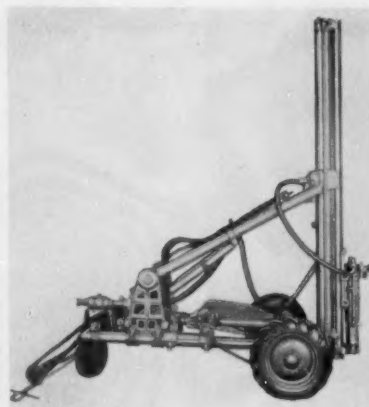
Known the world over, the Sasgen line is handled by leading equipment distributors everywhere. See your dealer today... or write direct for latest Catalog. No obligation.

## SASGEN DERRICK COMPANY

3129 West Grand Avenue, Chicago 22, Illinois

## NEW EQUIPMENT • MATERIALS

**Wagon Drill**—Cleveland Rock Drill Division, Le Roi Co., 12500 Berea Rd., Cleveland 11. Cleveland air motor and special axle have been added to DR-30 wagon drill to make it self-propelled. Motor, with gear ratio, has power for propulsion over rough terrain. Similar air motor is also used for raising and lowering wagon-drill boom. Power is transmitted from motor to wheels by chain drive. This is shown exposed in illustration, but it is actually fully enclosed. Wheels are mounted on automotive-type axle.



Cleveland DR-30 wagon drill is now self-propelled

**Crushing Plant**—Universal Engineering Corp., 331 8th St., N. W., Cedar Rapids, Iowa. Two-unit hammermill crushing, screening and loading plant is designed for operation in wet, sticky materials and in quarries contaminated by clay balls and mud pockets. It has Bulldog Model HM-04-NC non-clog portable hammermill unit teamed with Universal Model 5142 portable screening unit. It will produce aglime and road rock, aglime

and chips or 100% aglime. Entire crushing operation is performed by hammermill operating in closed circuit. It is equipped with moving breaker plate and moving cleaning bar. Plate prevents build-up of material in breaking chamber, cleaning bar keeps discharge free at all times. Hammermill unit consists of 42" x 12' apron feeder with shovel loading hopper, hammermill, 36" front delivery conveyor, 18" return circuit conveyor and operator's platform, all mounted on steel gooseneck truck with pneumatic tires. Hammermill is diesel-powered. All other units are electric push button controlled. Screening unit consists of 5' x 14' double deck inclined gyrating screen with 70 sq. ft. of screening area in each deck and ball tray deck under second deck, 30" channel frame feed conveyor, 30" front delivery conveyor, 24" side delivery conveyor and 18" channel frame return circuit conveyor, all mounted on pneumatic-tired gooseneck truck. It is all-electric drive.

**Asphalt Plant**—Standard Steel Corp., 5007 Boyle Ave., Los Angeles 58. Model TM portable batch-type asphalt plant is designed for use in areas where larger units cannot be erected and operated profitably. Welded steel framework is heavily braced to withstand torsion and stress. It is mounted on heavy-duty pneumatic truck tires. Tractor-type trailer hitch and air connections permit it to be moved with semi-type truck tractor. It is equipped with self-erecting device, permitting raising into position by pushing button. Power-hoist is run by 1/2 h.p. worm gear motor. Symons horizontal type screen controls gradation for 4 separations. Plant has welded steel aggregate hopper and asphalt bucket suspended on hopper-type scales and levers. Mixer is identical with ones on larger Standard plants.



Universal Engineering hammermill crushing, screening and loading plant

**Truck Mixer**—Blaw-Knox Co., Blaw-Knox Equipment Division, Pittsburgh 38. Model M 4½-cu. yd. capacity size truck mixer can be furnished with open- or closed-end drum. It is equipped with large diameter drums. Stationary charging hopper fits into large diameter charging cone in drum opening which rotates with drum. Mantel steel is used for mixer shell and blades, with thicker plates in front sections. Spillage of concrete on steep grades is prevented by drip shield on charging hopper as spiral blades dam opening between charging cone and drum shell. Distributing chute is made from Mantel steel in 2 pieces with total length of 10'. Chute is bowl-shaped at upper end. Upper end is pivot-mounted and is supported by adjustable strut to vary slope of chute. Entire chute assembly can be swung to one side. Detailed information on 4½-yd. Model M is contained in Bulletin 2478, available from manufacturer.



Blaw-Knox 4½ cu.-yd. Model M

**Grader Power-Steering Unit**—Rivinius, Inc., Eureka, Ill. Power steering unit is offered for Caterpillar 12 and 112 (including 9K) motor graders. It consists of Vickers hydraulic pump, cylinder mounted on front axle and controlled by valve on steering shaft. Power to turn wheels is supplied by pump. Spring on valve puts only enough tension on steering wheel to provide "feel" of steering. Unit automatically locks front wheels in whatever position they are when operator removes both hands from wheel in order to handle control levers.

**Engine**—Kohler Co., Kohler, Wis. New development for 26.8 h.p. K660 air-cooled engine is hand clutch. It is wet-type, lever-operated clutch, designed to engage at all engine speeds and is mounted on anti-friction ball bearings. Known as Model K660C, it is 2-cylinder opposed model with silencer-type muffler, automotive diaphragm-type fuel pump, oil bath cleaner and oil pressure gage.

AMERICAN INDUSTRY CONTINUES TO BUILD WITH LURIA

# Omar INCORPORATED

## has expanded with

# 30

## LURIA Buildings

### since 1949



This new Omar building in Indianapolis, Ind. — the 30th Luria structure for America's fastest-growing bakers — basically is a counterpart of its twenty-nine predecessors located in Ohio, Indiana, Nebraska, Iowa, Wisconsin and Illinois. E. W. Hauser Construction Company of Indianapolis was general contractor for this newest building.

### LURIA combines the DESIGN and PERMANENCE of CUSTOM-BUILT UNITS... with the SPEED and LOW COST of STANDARDIZATION

Can standardized buildings *look* the way you want them to? Yes—if they are Luria structural steel buildings. The *flexibility* and *adaptability* of design provided by the "Luria system of standardization" make possible almost *any* type of architectural treatment suitable to your *individual* requirements. And to assure you *durability* of structure,



Luria materials and construction surpass the most stringent building code requirements. Finally, Luria Buildings deliver substantial *initial* savings, continuing *maintenance* savings. The list of companies who *re-order* Luria Buildings is best testimony of the many advantages of Luria Standardization. Contact your Luria representative. *It pays!*

## LURIA ENGINEERING Company

511 FIFTH AVENUE, NEW YORK 17, N. Y.

Plant: BETHLEHEM, PA.

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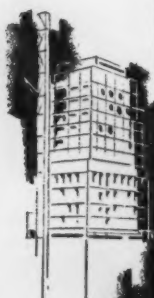
**Crushing Plant**—*Iowa Manufacturing Co., Cedar Rapids, Iowa.* "Cedarapids" single pass portable crushing plant produces 2 sizes of low-cost gravel or rock on jobs where material does not have to be accurately graded. It consists of 6' x 6' loading hopper equipped with sloping bar grizzly with 7" openings; 18" reciprocating plate feeder with adjustable feed stroke and feed gate; 2' x 6'

double-deck Model H inclined vibrator screen; 10" x 24" roller-bearing jaw crusher; 24" x 25' channel frame delivery conveyor; 14" x 20' sand conveyor; 36-h.p. gasoline engine. All are mounted on rubber-tired full-trailer, gooseneck type, with upper 5th wheel plate. Entire plant weighs approximately 24,500 lbs. Oversize that will not pass through top deck of screen drops into jaw crusher and

crushed material is discharged onto delivery conveyor. Material that passes through top deck falls directly onto delivery conveyor. Fines and sand passing through both decks can be shunted into side sand delivery conveyor for elimination or onto delivery conveyor with main product material by means of flop gate. Flop gate can be adjusted so certain percentage of sand can be blended with crushed material and remainder eliminated. Hopper and feeder are mounted on rear end of plant and dolly on front.

## CENTRAL SURETY Bonding Service

*Pays Off!*



**1954**

Construction awards  
at a new high!

**1954**

Election Year

1954... a BIG BOND  
YEAR for agents using  
Central Surety's  
facilities for producing  
**CONTRACT**  
and  
**PUBLIC OFFICIAL**  
**BONDS**

*Now*

is the time  
to go after  
this business!



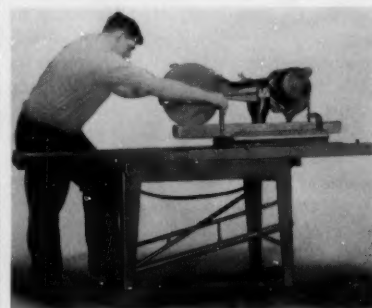
**CENTRAL SURETY AND INSURANCE CORPORATION**

HOME OFFICE KANSAS CITY, MISSOURI



"Cedarapids" single pass portable  
crushing plant

**Masonry Saw**—*Construction Machinery Sales Co., Waterloo, Iowa.* Saw can be easily modified for long cuts and quickly converted to slab cutter. It has extra-wide table, unitized arm construction and adjustable base. Portable dust collector is available as optional equipment. Longitudinal rack which may be attached in one minute makes accurate long cuts possible. Transverse rollers permit cross-cutting with same cart and rack. As slab cutter it is one-man-operated. Dust or spray is thrown away from operator.



Construction Machinery Sales Co.'s  
masonry saw

**Shovel-Crane**—*Link-Belt Speeder Corp., Cedar Rapids, Iowa.* LS-68 ¾-yd. shovel-crane takes place of LS-52. It is equipped with "Speed-o-Matic" power hydraulic controls.

Frame is 11' long and 9'2" wide with 24" shoes and 9'8" wide with 30" shoes. Large 10" diameter heat-treated forged steel single-flange track rollers are bronze-bushed and mounted on 2½" diameter shafts. Weight of machine is 35,300 lb. as standard shovel. Six conical hook rollers, 2 equalized pairs in front and 2 individually mounted in rear, are standard. Crawler-base rig is convertible to all standard front-end attachments.

**Blueprint Rack**—*Momar Industries, 4323 W. 32d St. Chicago 25.* "Glider" blueprint rack has specially designed clamp which eliminates need to punch holes in each set of prints and holds any thickness of set. It is tightened or opened by thumbscrew adjustment and permits easy insertion or removal of prints. Clamp can accommodate various sizes of prints and can hold from one to 100 sheets. Rack can hold 12 to 18 sets of drawings and clearly visible index shows location of each set. Adjustable tracks allow for varying thicknesses of sets. Rack is of all-steel construction, finished in gray. Rack can be taken apart and re-assembled easily. Extension unit to add to basic unit is available. Shelf with compartments for filing specifications is also offered. Single unit rack is 5' high, 4' wide and 3' deep.

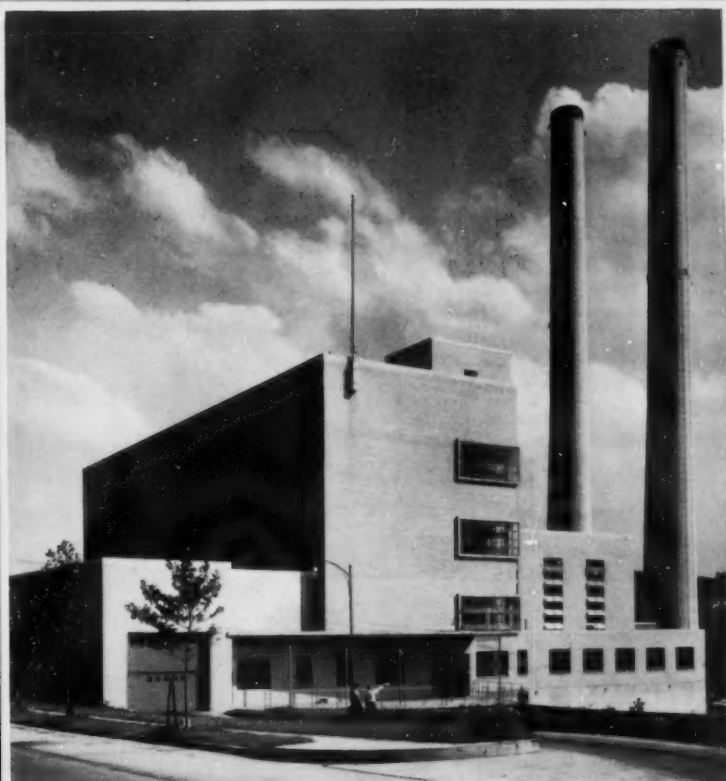


"Glider" blueprint rack

**Drills**—*Salem Tool Co., Salem, Ohio.* New McCarthy heavy-duty auger drills handle wide variety of drill heads. They are portable. Masts drop down for over-road travel. Units are powered by gasoline, diesel or electric motors and can be removed from truck or half-track when not in use.

# Since HOPE'S 1818

STEEL WINDOWS HAVE THE STRENGTH AND RIGIDITY THAT NO OTHER WINDOW CAN MATCH  
**HOT-DIP GALVANIZED WINDOWS WITH BILTIN SUBFRAMES**



*Bets Ave. Destructor Plant, New York City  
Architect: The City of New York Dept. of Public Works, Division of Engineering and Architecture  
Contractor: Grove, Shepherd, Wilson & Krue, Inc.*

This building of the Sanitation Department of New York City is a good example of fine design among commercial and industrial buildings.

HOPE'S HOT-DIP GALVANIZED WINDOWS and BILTIN SUBFRAMES are ideally suited for this application. Their flexibility of size and arrangement adapts them for use with all types of architecture. They provide any required amount of ventilation and daylight. They have unmatched strength and rigidity, require little maintenance.

*Investigate Hope's Hot-Dip Galvanized Windows. Write:*

**HOPE'S WINDOWS, INC., Jamestown, N. Y.**

*The Finest Buildings throughout the World are Fitted with Hope's Windows*

**Engines**—Willys Motors, Inc., Industrial Engine Department, 1060 N. Cove Blvd., Toledo 1, Ohio. Booklet describes "Power Giant" industrial engines—Model L-4 "Jeep" and Model F-4 "Hurricane." Complete engine details are given for both L and F head designs including power, torque and fuel curves at various r.p.m. Installation diagrams and other general descriptive material are included.

**Scaffolding**—The Patent Scaffolding Co., 38-21 12th St., Long Island City 1, N. Y. How to enclose scaffolding for winter construction is described in September issue of *Scaffolding Methods*. Examples of various cold weather enclosures for both "hanging" and "built-up" types of scaffolding are described and illustrated by on-job photos. Information on types of protective scaffold coverings for specific winter-time building conditions is included.

**Steel Shoring**—The Patent Scaffolding Co. offers bulletin, *Modern*

*Shoring for Concrete Construction*, presenting 3 types of shoring. Featured is "Trouble Saver" sectional shoring, prefabricated shoring made up of welded steel sections that provide scaffold within shoring and working level below slab. Engineering drawings, safe load charts and photos of typical installations are included. Other equipment described are "Tube-Lox" shoring and Burton's shores.

**Oil Filtering**—Caterpillar Tractor Co., Peoria 8, Ill. Necessity of efficient filtering of lubricating oil is pointed out in *No Short Cuts to Safe Filtering* (Form 31085). It discusses risks in "short cuts" in lubricating oil filter systems, gives step-by-step discussion of what filter must accomplish and describes how full-flow filtering system serves engine.

**Tractor History**—Caterpillar offers booklet (Form D438) giving brief history of track-type tractor manufacture beginning with building of crawler 50 years ago by parent company of Cater-

pillar. Illustrations show product improvement through half-century of research, scientific engineering and progressive manufacturing methods.

**Excavator**—Harnischfeger Corp., Small Excavator Division, 4609 W. National Ave., Milwaukee 46. Bulletin X-161 presents Model 255 ALC  $\frac{3}{4}$ -yd. long-crawler excavator. It carries description and illustration of complete machine, as well as detailed information on extra-long, wide crawlers.

**Rollers**—The Galion Iron Works & Mfg. Co., Galion, Ohio. New "Roll-O-Matic" variable-weight tandem rollers are presented in Catalog 400. Featured is "Roll-O-Matic" drive utilizing torque converter. Other construction features are illustrated and complete specifications are listed.

**Grader**—Galion presents Model 118 all-gear, tandem-drive motor grader in Catalog 395. Operating and construction features are illustrated and described. Extra equipment, such as hydraulic shiftable moldboard and creeper transmission are also described.

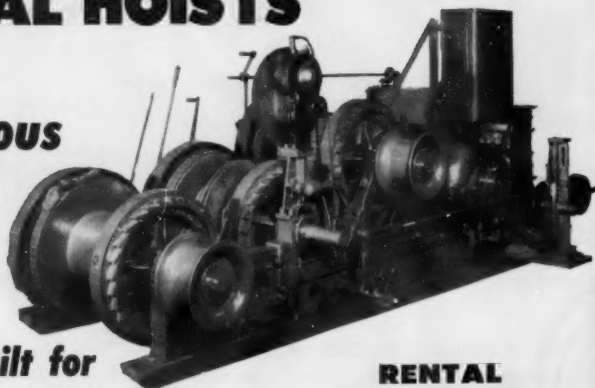
**Road Building Equipment**—Blaw-Knox Co., Equipment Division, Pittsburgh 38. Bulletin 2463 describes equipment for construction of roads, highways and airports and for production of ready-mixed concrete. Items listed are base pavers, wideners, batching and mixing plants, clamshell buckets, concrete buckets, concrete finishers and spreaders, steel forms, subgraders, truck mixers and parts and services.



The first model of R. G. LeTourneau, Inc.'s "Sno-Buggy" is on its way to the North country for test as a trail blazer through deep, soft, powdery snow. Eight huge tires—each one 10' high and 4' wide—are mounted dual-fashion on the 4 LeTourneau electric wheels. The number of these tires provides a high degree of support and flotation for the 23-ton vehicle.

# THOMAS RENTAL HOISTS

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continuous  
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**Hoists built for  
nationwide rental**

Special Hoists on request—Torque converter equipped available—up to 14,000 lb. bare drum line pull—20 to 100 H.P. Single, Double, Three Drum Gasoline or Electric-Boom Swingers.

Rental Service to Skyscraper, multi-story and Grain Elevator Builders from Coast to Coast from the Thomas Mid-Continent plant in Chicago.

**RENTAL  
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# WELLMAN-WILLIAMS PERFORATED DRAGLINE BUCKETS

**Excavating, Drilling, Materials-Handling Equipment**—*Bucyrus-Erie Co., South Milwaukee, Wis.* General Catalog GC-5A covers company's complete line. Condensed specifications are given and more than 100 illustrations show machines on jobs. Recent additions to line shown in catalog are quarry and mine shovels and blast hole drills, stripping shovels, walking draglines and railway cranes.

**Grout Mixer**—*Construction Machinery Sales Co., Waterloo, Iowa.* Leaflet presents Model 240 "Jet-creter," giving its features and optional equipment. Photos show it in use. Specifications are given.

**Carrier Hoist**—*H. S. Watson Co., 1316 67th St., Emeryville, Calif.* "Big Ben" 5th wheel carrier hoist is pictured and described in folder. Illustrations show how this hydraulic lift is attached and operated for recovery of disabled trucks.

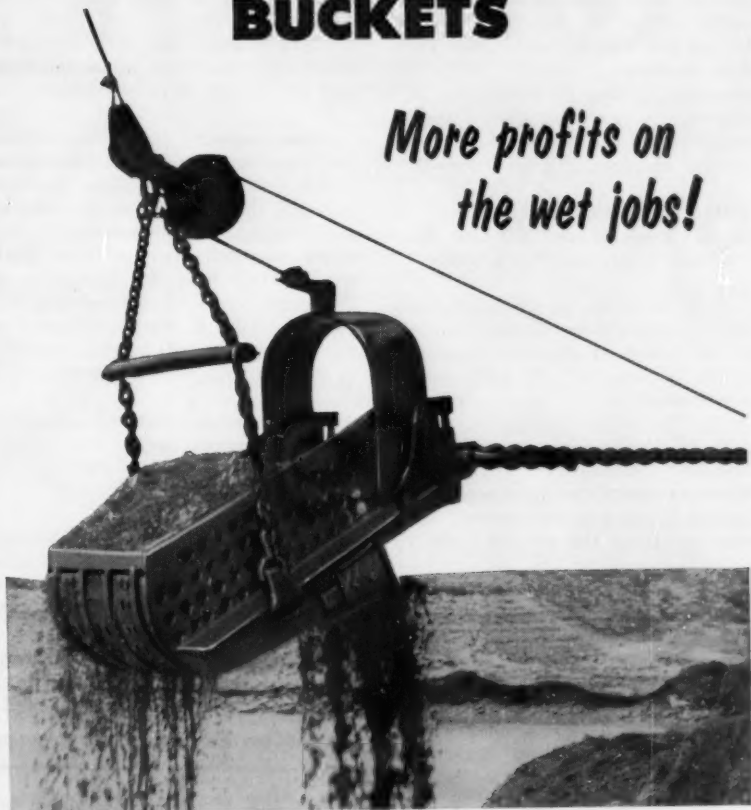
**Hose**—*Boston Woven Hose & Rubber Co., P.O. Box 1071, Boston 3.* Catalog presents Boston line of water hose and water suction hose. It lists specifications for each type of hose as to size, weight, construction and recommended use and working pressures.

**Scaffolding**—*Brainard Steel Division, Sharon Steel Corp., Griswold St., Warren, Ohio.* Scaffolding system is described in bulletin. It shows principle of assembly, using patented slip-fit arrangement which eliminates nuts, bolts, pins or tools, illustrates various applications and shows all parts of system in scale.

**Cement-Dispersing Agent**—*The Master Builders, Co., 7016 Euclid Ave., Cleveland 3.* Folder P-48a describes use of low-heat "Pozzolite" in mass concrete for reducing total heat evolution. It outlines advantages of "Pozzolite" in plastic and hardened state, gives various types and adaptations, design of "Pozzolite concrete," use in mass concrete and use for structures and flat slabs in hot weather.

**Electric Equipment for Heavy Construction Tools**—*General Electric Co., Schenectady 5, N. Y.* Bulletin GEA-6195 contains case histories of various electrified construction tool applications for dam construction.

*More profits on  
the wet jobs!*



THE Wellman-Williams Perforated Dragline Buckets have welded stiffeners the full length of the bucket for maximum strength and rigidity. Alloy steel construction gives maximum strength with minimum dead weight. Teeth are made of manganese steel and are reversible.

Hitch connections can be easily adjusted to any desired digging depth. Gives the operator a wide digging range for faster work.

Solid plate type dragline buckets also available.

It's a **WELLMAN** — built to dig and last while digging.

**THE WELLMAN ENGINEERING CO.**  
CLEVELAND 4, OHIO

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for free  
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7074 Central Avenue, Cleveland 4, Ohio

Please send me a free copy of bulletin on:

- |  |                                      |
|--|--------------------------------------|
| <input type="checkbox"/> Clamshell Buckets | <input type="checkbox"/> Stone Grabs |
| <input type="checkbox"/> Dragline Buckets  | <input type="checkbox"/> Log Grabs   |

Your Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Position \_\_\_\_\_ Company \_\_\_\_\_

James R. Harwood has been appointed sales manager of Transo Division of LE ROI Co. . . . Jack E. Heuser has been appointed vice president in charge of sales of all Le Roi products . . . Ray H. Rodolf has been appointed general manager, Compressor Division and Herschel V. Hiatt, general manager, Engine Division.

B. F. Whitbread has been appointed product sales manager for GAR WOOD hydraulic hoists and dump bodies.

A. T. Kearney, president of ZONOLITE Co., has been elected chairman of the board of directors, replacing Philip D. Armour. He will continue as president.

W. H. Duffill, manager of the Construction Machinery Division of WORTHINGTON CORP., has resigned to conduct his own manufacturers' agent activities along the eastern seaboard.

Louis T. M. Ralston, president of INDUSTRIAL BROWNHOIST CORP., has been elected president of "QUICK-WAY" TRUCK SHOVEL Co. Both companies were recently acquired as wholly-owned subsidiaries of Penn-Texas Corp. The new chairman of the board of "Quick-Way" is Oscar L. Chapman, Secretary of the Interior from 1949 to 1953. Luke E. Smith, founder and former president of "Quick-Way," will continue as consultant.

THE R. C. MAHON Co. has completed another expansion program, adding some 130,000 sq. ft. of factory space and 20,000 sq. ft. of office space. The plant now provides a total of 1,300,000 sq. ft. of manufacturing,

fabricating and storage space, and 132,000 sq. ft. of office space.

Clark Munger has been appointed advertising and sales promotion manager of BARNES MANUFACTURING Co.

AERO DESIGN AND ENGINEERING Co., manufacturer of the Commander twin-engine executive plane, has announced the creation of a research and development engineering division which will be located on Max Westheimer Field near the University of Oklahoma School of Aeronautical Engineering. T. R. Smith, designer of the Commander, will be vice president in charge of the research section.

John Pendergast has been appointed domestic sales manager of FOOTE CONSTRUCTION EQUIPMENT DIVISION of BLAW-KNOX Co.

On August 1, William B. Elliott, president of INSLEY MANUFACTURING CORP., became chairman of the board, James R. Elliott, executive vice president, became president and William T. Elliott became executive vice president.

## Movie on Excavators, Cranes

More than 30 different excavating, loading and material handling jobs are pictured in product film on Bucyrus-Erie line of  $\frac{3}{8}$ - to 4-cu. yd. excavators and cranes. Entitled "These Users' Views," film is 16 mm. sound-color picture and runs approximately 25 minutes.

Prints of film may be borrowed from Bucyrus-Erie Co.'s Publicity Department, South Milwaukee, Wis.

Michigan power cranes and shovels and Michigan tractor shovels, manufactured by CLARK EQUIPMENT Co.'s CONSTRUCTION MACHINERY DIVISION, can now be obtained on a lease basis, either with or without option to purchase, through the company's newly formed subsidiary, Clark Leasing Corp.

John Lawrence has been appointed executive vice president of JOY MANUFACTURING Co.

Ray J. Dervej has been appointed general sales manager of AMERICAN HOIST & DERRICK Co.

## District Construction Manager

Large national engineering and construction company with headquarters in the midwest seeking graduate engineer with several years varied experience in the mechanical and building phases of construction to serve as construction manager of midwestern district. Position involves the supervision and direction of project superintendents on both building and mechanical type projects, including analysis of costs and methods relating to each project. There will be considerable travel. Experience as a district construction supervisor or project manager on several large projects is desired.

Persons qualified should submit a complete résumé stating experience, education and salary requirements. All replies treated confidential. Interviews arranged for qualified applicants.

P. O. Box 153, Benjamin Franklin Station, Washington 4, D. C.

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AIR HOSE	FIRE HOSE
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SUCTION HOSE	HYDRAULIC HOSE
DISCHARGE HOSE	WELDING HOSE
STEAM HOSE	VACUUM HOSE

CONVEYOR BELTING  
ELEVATOR BELTING  
TRANSMISSION BELTING

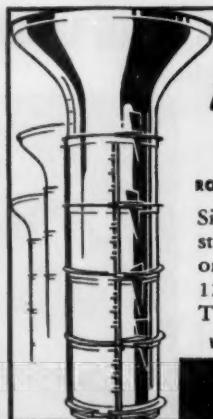
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ROUND COLUMN FORMS—Sturdy • Straight • True

Since 1888—the standard in the construction industry . . . for lease only or, for lease-and-erection. Diameters: 12" to 56" and larger; any height. Two attractive capitals.

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Order No.	MANUALS	Per Copy	Per Dozen	Per 100
1.	A.G.C. Manual (Contains documents listed below: Nos. 9-30, inclusive, and Nos. 34, 35, 36, 36a, 37, 38).	\$5.00	\$50.00	_____
2.	Accident Prevention Manual (Revised and enlarged 1952) (Pocket-sized sectional reprints available. Information on request.)	3.00	30.00	\$210.00

3. Suggested Form of Contract, Engineering Construction Projects, prepared by A.S.C.E. and A.G.C., 1953 edition.....	.25	2.75	20.00
4. Standard Building Contract of the American Institute of Architects—Revised 6th Edition .....	.50		47.50
5. Subcontract form—American Institute of Architects—Revised 6th Edition.....	.10		9.50
6. Standard Form of Acceptance of Subcontractor's Proposal .....	.10		9.50
7. Standard Government Contract.....	.01		
8. A.G.C. Cost Plus a Fee Contract.....	.10	.50	2.50
9. A.I.A. Cost Plus a Fee Agreement between Contractor and Owner—Revised 6th Edition .....	.10		
11. Equipment Rental Agreement.....	.10	.50	3.00
12. A.G.C. Proposal Form.....	.10	.50	3.00

13. A.I.A. Accounting Form #701 "Change Order" .....	.20	1.80	12.00
14. A.I.A. Accounting Form #702 "Request for Partial Payment" .....	.20	1.80	12.00
15. A.I.A. Accounting Form #703 "Certificate for Payment" .....	.20	1.80	12.00
16. Building Estimate Summary .....	.10	.50	3.00
17. Job Overhead Summary .....	.10	.50	3.00
20. Contractors' Equipment Ownership Expense (Itemized tables of ownership expense elements with instructions for application. Revised 1949) .....	1.00	10.00	65.00
21. Equipment Record—Bond paper .....	.10	.50	3.00
22. Equipment Record—Cardboard .....	.10	.50	3.50

24. Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover.			
Engineering Construction (For Qualifying Before Bidding) .....	90	1.80	12.00

25. Standard Pre-Qualification Questionnaires and Financial Statements for Prospective Bidders—Complete in Cover. Building Construction (For Qualifying Before Bidding) .....	\$ .20	\$1.80	\$12.00
26. Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Engineering Construction (For Qualifying After Bidding) .....	.20	1.80	12.00
27. Standard Questionnaires and Financial Statement for Bidders—Complete in Cover. Building Construction (For Qualifying After Bidding) .....	.20	1.80	12.00
28. Financial Statement and Questionnaire for Credit Transactions .....	.20	1.80	12.00

29. Insurance Check List.....	.10	1.00	5.00
30. The Functions of a General Contractor...	.10	.75	6.00
34. A.G.C. Governing Provisions.....	.10	.50	3.00
35. A.G.C. Code of Ethical Conduct.....	.10	.50	3.00
36. Concrete Mixer Standards.....		Single	copies—no
36a. Contractors' Pump Standards.....		charge; quantity	
37. A.I.A. Standard Form of Arbitration Procedure.....		prices on applica-	
38. Suggested Guide to Bidding Procedure.....		tion.	
38a. Invitation to Bid Form for Subcontracts.....			



List of Styles and Prices on request.

39. A.G.C. Cardboard Seal (red and black)	
24" dia. ....	.50
40. A.G.C. Metal Seal (red and black) 10" dia. ....	.40
41. A.G.C. Decalcomania Seal (red and black)	
a. 10" dia. ....	.20
b. 5" dia. ....	.10
Metal Seals and Decals: 20% discount for	
orders of more than 50; 40% discount for	
orders of 200 or more.	

Form SS1: Application for Employment; Form SS2: Employees' History Record; Form SS3: Employees' Employment and Earnings; Form SS4: Payroll. List of prices and styles will be furnished to A.G.C. members on request.

[illegible]

Oct. 1954





Taking chances on highways and streets costs America 2,092,000 casualties annually.

**It doesn't pay to take chances when buying a mixer either!**



Be sure the Mixer you buy is AGC RATED!



● You know just what the performance of a Mixer will be when it's AGC RATED!

For to wear the AGC plate, portable concrete Mixers and Pavers must meet rigid specifications as to sizes and mixing capacity.

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Milwaukee, Wisconsin

CONSTRUCTION MACHINERY CO.  
Waterloo, Iowa

BLAW-KNOX COMPANY  
Foote Construction Equipment Division  
Nunda, New York

THE JAEGER MACHINE CO.  
Columbus, Ohio

THE KNICKERBOCKER CO.  
Jackson, Michigan

KOEHRING COMPANY  
Milwaukee, Wisconsin

KWIK-MIX COMPANY  
Port Washington, Wisconsin

THE T. L. SMITH COMPANY  
Milwaukee, Wisconsin

WORTHINGTON CORPORATION  
Concrete Machinery Division  
Plainfield, New Jersey

## GUIDE TO ADVERTISERS' PRODUCTS

Manufacturers' addresses are listed on page 98

**Asphalt Joint Sealer**  
Servicised Products Corp.

**Asphalt Plants (Portable)**  
Barber-Greene Co.  
Iowa Mfg. Co.  
Universal Engineering Corp.

**Axles (Truck)**  
Eaton Manufacturing Co.

**Sockfillers**  
Bucyrus-Erie Co.  
Cleveland Trencher Co.  
Harnischfeger Corp.  
Parsons Co.  
Unit Crane and Shovel Corp.

**Batchers**  
Blaw-Knox Division  
Butler Bin Co.  
Construction Machinery Co.  
Heltzel Steel Form & Iron Co.  
C. S. Johnson Co.

**Bearings (Anti-Friction, Tapered Roller)**  
Hyatt Bearings Division  
Timken Roller Bearing Co.

**Beltting**  
Carlyle Rubber Co.

**Bins**  
Blaw-Knox Division  
Butler Bin Co.  
Heltzel Steel Form & Iron Co.  
Iowa Mfg. Co.  
C. S. Johnson Co.

**Bits (Detachable Drill)**  
Ingersoll-Rand Co.  
Timken Roller Bearing Co.

**Blasting Accessories**  
American Cyanamid Co.

**Blueprint Racks**  
Momar Industries

**Bridges**  
American Bridge Division  
Armco Drainage & Metal Products

**Buckets (Clamshell & Dragline)**  
Blaw-Knox Division  
Bucyrus-Erie Co.  
Harnischfeger Corp.  
C. S. Johnson Co.  
Owen Bucket Co.  
Wellman Engineering Co.

**Buckets (Concrete)**  
Blaw-Knox Division  
Construction Machinery Co.  
Heltzel Steel Form & Iron Co.  
Insley Manufacturing Corp.  
Owen Bucket Co.

**Buildings**  
Allied Structural Steel Cos.  
American Bridge Division  
Armco Drainage & Metal Products  
Luria Engineering Co.  
Macomber, Inc.  
Truscon Steel Division

**Bulldozers**  
LeTourneau-Westinghouse Co.

**Car Pullers**  
Clyde Iron Works  
Superior-Lidgerwood-Mundy Corp.

**Cement (Common and Special)**  
Lehigh Portland Cement Co.  
Lone Star Cement Corp.  
Universal Atlas Cement Co.

**Cement (White)**  
Trinity White, General Portland Cement Co.  
Universal Atlas Cement Co.

**Clamps (Hose)**  
Dixon Valve & Coupling Co.

**Column Forms**  
DesLauriers Column Mould Co.

**Compressors**  
Allis-Chalmers Co.  
Ingersoll-Rand Co.  
LeRoi Co.

**Concrete Mixers, Pavers, Tamers**  
Chain Belt Co.  
Construction Machinery Co.  
Foote Construction Equipment Division, Blaw-Knox Co.  
Jaeger Machine Co.  
Knickerbocker Co.  
Koehring Co.  
Kwik-Mix Co.  
T. L. Smith Co.  
Worthington Corp., Construction Equipment Division

**Concrete Slab Void Tubes**  
Sonoco Products Co.

**Concrete Vibrators**  
Concrete Surfacing Machinery Co.  
Electric Tamper & Equipment Co.  
Ingersoll-Rand Co.

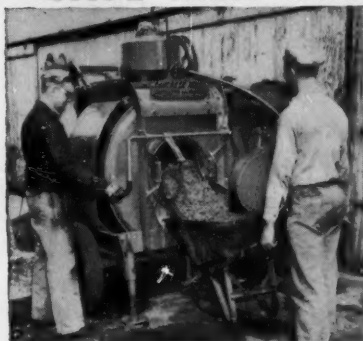
**Conveying Machinery**  
Barber-Greene Co.  
Chain Belt Co.  
Iowa Mfg. Co.  
Universal Engineering Corp.

**Cranes**  
Austin-Western Co.  
Bucyrus-Erie Co.  
Clark Equipment Co., Construction Machinery Division  
Cleveland Trencher Co.  
Clyde Iron Works  
Harnischfeger Corp.  
Insley Manufacturing Corp.  
Koehring Co.  
Northwest Engineering Co.  
Thew Shovel Co.  
Unit Crane and Shovel Corp.

**Crushing Machinery**  
Allis-Chalmers Co.  
Austin-Western Co.  
Iowa Mfg. Co.  
Universal Engineering Corp.

- Culverts**  
Armco Drainage & Metal Products
- Cutters (Abrasives)**  
Wodack Electric Tool Corp.
- Decking (Roof Steel & Aluminum)**  
Macomber, Inc.
- Derricks**  
Clyde Iron Works  
Sasgen Derrick Co.
- Doors (Metal, Wood)**  
Kinnear Mfg. Co.  
R. C. Mahon Co.  
Truscon Steel Division
- Dredging Machinery**  
Harnischfeger Corp.  
Northwest Engineering Co.
- Drills & Drilling Machinery**  
Bucyrus-Erie Co.  
Ingersoll-Rand Co.  
Timken Roller Bearing Co.
- Drills (Electric)**  
Wodack Electric Tool Corp.
- Electric Plants**  
Kohler Co.
- Elevators (Material)**  
Chain Belt Co.  
Iowa Mfg. Co.  
Universal Engineering Corp.
- Engines**  
Allis-Chalmers Tractor Div.  
American Hoist & Derrick Co.  
Caterpillar Tractor Co.  
Continental Motors Corp.  
Detroit Diesel Engine Division  
Harnischfeger Corp.  
Ingersoll-Rand Co.  
International Harvester Co.  
Kohler Co.  
LeRoi Co.  
Reo Motors, Inc.  
Waukesha Motor Co.  
Wisconsin Motor Corp.
- Expansion Joints**  
Laclede Steel Co.  
Servicised Products Corp.
- Explosives**  
American Cyanamid Co.
- Fasteners (For Steel, Concrete)**  
Velocity Power Tool Co.
- Financing**  
C.I.T. Corp.
- Finishing Machines (Bituminous)**  
Barber-Greene Co.
- Finishing Machines (Concrete)**  
Blaw-Knox Division
- Flooring**  
Truscon Steel Division
- Forms (Concrete) and Accessories**  
Blaw-Knox Division  
Economy Forms Corp.  
Heltzel Steel Form & Iron Co.  
Joseph T. Ryerson & Son, Inc.  
Sonoco Products Co.  
Symons Clamp & Mfg. Co.  
Universal Form Clamp Co.
- Generating Sets (Electric)**  
Caterpillar Tractor Co.
- Graders**  
J. D. Adams Mfg. Co.  
Allis-Chalmers Tractor Div.  
Austin-Western Co.  
Caterpillar Tractor Co.  
Euclid Division  
Galion Iron Works & Mfg. Co.  
Koehring Co.
- Gravel Plants (Portable)**  
Iowa Mfg. Co.
- Grinders (Electric)**  
Wodack Electric Tool Corp.
- Hammers (Electric)**  
Wodack Electric Tool Corp.
- Hoists**  
American Hoist & Derrick Co.  
Clyde Iron Works  
Construction Machinery Co.  
Harnischfeger Corp.  
Ingersoll-Rand Co.  
Sasgen Derrick Co.  
Superior-Lidgerwood-Mundy Corp.  
Thomas Hoist Co.
- Hose (Air, Water, Steam, Suction)**  
Carlyle Rubber Co.  
United States Rubber Co.
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C.I.T. Corp.
- Insurance (Automobile, Casualty, Compensation, Liability)**  
Aetna Casualty & Surety Co.  
American Casualty Co.  
Central Surety & Insurance Corp.  
Employers Mutuals of Wausau
- Joists (Steel)**  
Laclede Steel Co.  
Macomber, Inc.
- Lighting Plants**  
LeRoi Co.
- Loaders (Portable)**  
J. D. Adams Mfg. Co.  
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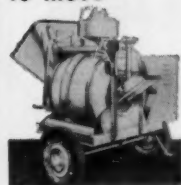


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If you want the best with the longest trouble-free performance choose CMC Job Mixers.

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Blaw-Knox Division  
Chain Belt Co.

### Mixing Plants

Blaw-Knox Division  
Butler Bin Co.  
Chain Belt Co.  
C. S. Johnson Co.

### Mortar (Masonry)

Lehigh Portland Cement Co.

### Nipples (Hose)

Dixon Valve & Coupling Co.

### Pan Forms (Concrete)

Gateway Erectors, Inc.

### Partitions (Steel, Load-Bearing)

Macomber, Inc.

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American Hoist & Derrick Co.  
Austin-Western Co.  
Bucyrus-Erie Co.  
Harnischfeger Corp.  
Ingersoll-Rand Co.  
L. Burmeister Co.  
McKiernan-Terry Corp.

### Pile Drivers—Cont.

Northwest Engineering Co.  
Thew Shovel Co.  
Vulcan Iron Works

### Piling (Steel)

Allied Structural Steel Cos.  
American Bridge Division  
Armco Drainage & Metal Products  
Bethlehem Steel Co.  
Union Metal Manufacturing Co.

### Pipe

Armco Drainage & Metal Products  
Laclede Steel Co.  
Naylor Pipe Co.  
Universal Sewer Pipe Corp.

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C.H.&E. Mfg. Co.  
Carver Pump Co.  
Chain Belt Co.  
Construction Machinery Co.  
Essick Manufacturing Co.  
Gorman-Rupp Co.  
Griffin Wellpoint Corp.  
Ingersoll-Rand Co.  
Jaeger Machine Co.  
Leyman Mfg. Corp.  
Marlow Pumps  
Novo Engine Co.

### Pumps (Contractors')—Cont.

Peerless Pump Division  
Rice Pump & Machine Co.  
Sterling Machinery Corp.  
Worthington Corp., Construction Equipment Division

### Pumps (Jetting)

Gorman-Rupp Co.  
Griffin Wellpoint Corp.

### Quantity Surveyors

H. A. Sloane Associates

### Quarry Plants

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Iowa Mfg. Co.  
Thomas Hoist Co.  
Universal Engineering Corp.

### Railway Equipment & Track Material

Wisconsin Motor Corp.

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Economy Forms Corp.  
Symons Clamp & Mfg. Co.  
Universal Form Clamp Co.

### Reinforcing Steel and Mesh

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Bethlehem Steel Co.  
Connors Steel Division  
Laclede Steel Co.  
Joseph T. Ryerson & Son, Inc.  
Truscon Steel Division

### Rollers

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Blaw-Knox Division  
Euclid Division  
Galion Iron Works & Mfg. Co.

### Roof Deck (Steel)

Allied Structural Steel Cos.  
R. C. Mahon Co.  
Truscon Steel Division

### Rope (Wire)

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Joseph T. Ryerson & Son, Inc.

### Sash (Metal, Wood)

William Bayley Co.  
Hope's Windows, Inc.  
Truscon Steel Division

### Scarifiers

J. D. Adams Mfg. Co.  
Austin-Western Co.

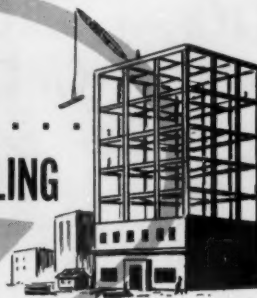
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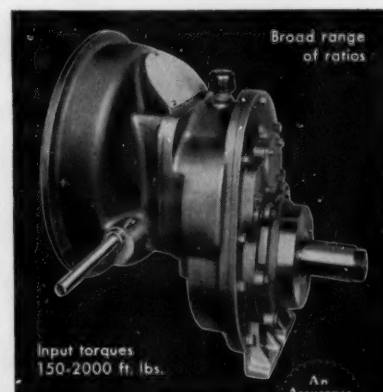
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Thew Shovel Co.  
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Bethlehem Steel Co.  
Flint Steel Corp.  
Macomber, Inc.  
Joseph T. Ryerson & Son, Inc.  
Truscon Steel Division

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American Surety Co.  
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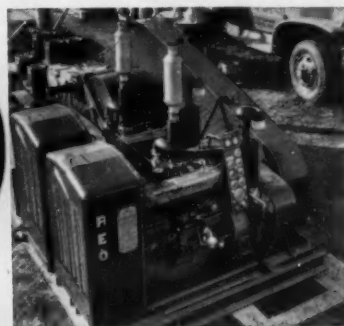
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Reading, Pa.

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Galion, Ohio

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Chicago 51, Ill.

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Akron 16, Ohio

Gorman-Rupp Co.  
Mansfield, Ohio

Griffin Wellpoint Corp.  
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Gulf Building  
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(Continued on page 100)

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**Lehigh Portland Cement Co.**  
Allentown, Pa.

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Philadelphia 3, Pa.

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**McKiernan-Terry Corp.**  
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Chicago 3, Ill.

**Novo Engine Co.**  
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**Parsons Co.**  
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Lansing 20, Mich.

**Rice Pump & Machine Co.**  
Grafton, Wis.

**Rogers Bros. Corp.**  
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P. O. Box 8000-A  
Chicago 80, Ill.

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Lorain, Ohio

**Thomas Hoist Co.**  
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Chicago 12, Ill.

**Timken Roller Bearing Co.**  
Canton 6, Ohio

**Trinity White, General Portland Cement Co.**  
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Chicago 3, Ill.

**Truscon Steel Division**  
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Youngstown 1, Ohio

**Union Metal Manufacturing Co.**  
Canton 5, Ohio

**Unit Crane and Shovel Corp.**  
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Milwaukee 14, Wis.

**United States Rubber Co.**  
Rockefeller Center  
New York 20, N. Y.

**Universal Atlas Cement Co.**  
100 Park Ave.  
New York 17, N. Y.

**Universal Engineering Corp.**  
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Cedar Rapids, Iowa

**Universal Form Clamp Co.**  
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Chicago 51, Ill.

**Universal Sewer Pipe Corp.**  
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Cleveland 14, Ohio

**Velocity Power Tool Co.**  
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Pittsburgh 8, Pa.

**Vulcan Iron Works**  
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Chicago 12, Ill.

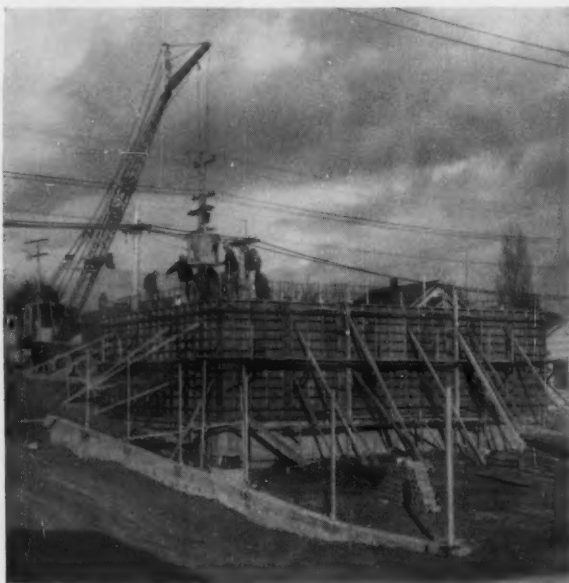
**Waukesha Motor Co.**  
Waukesha, Wis.

**Wellman Engineering Co.**  
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Cleveland 4, Ohio

**Wisconsin Motor Corp.**  
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**Wodack Electric Tool Corp.**  
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Chicago 44, Ill.

**Worthington Corp.—Constr. Equip. Div.**  
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First of four rectifier buildings for City Light, Seattle.  
C & R Builders, Seattle and Alaska, Gen. Con.

### Symons Prefab Forms Re-Used on Building Jobs

Symons prefab plywood panels being used on the first of four rectifier buildings for City Light, Seattle.

Use Symons Prefab Forms on your next job. Send in your plans and get complete layout and cost sheet—no obligation. Our Catalog F-9 will also be sent upon request. Symons Clamp & Mfg. Co., 4259 Diversey Avenue, Dept. J-4, Chicago 39, Illinois.

### Offset High Labor Costs with a Wodack® "Do-All"®



At today's high labor wages, saving workers' time, making it possible for workers to turn out more work per hour, and do jobs faster, is of top concern to contractors, maintenance men and industrial plants. So—listen to this: "We used the Wodack combination in putting up an anti-climber fence, drilling 250 holes 4" to 5" deep and it did wonderful work, cutting down our cost for the work about 80%."

That's what we mean by offsetting high labor costs with a Do-All. Jobs Your Wodack "Do-All" Will Do: Drilling concrete floors, drilling brick and stone for expansion bolts, channelling concrete floors, drilling metal and wood, chipping mortar joints, right hand drilling, bench grinding, chipping cracks for plastering, cutting holes and openings in walls.

Write for Bulletin 510C.

### Wodack® Electric Tool Corporation

4629 W. Huron St., Chicago 44, Ill., U.S.A.

Austin 7-9866

# OPERATION: **Blue Jay** at Thule, Greenland



Three years ago the Army Corps of Engineers was ordered to rush construction of a giant air base at Thule in the Arctic region of northern Greenland. Architects, engineers and contractors were faced with tremendous new problems in this land of continual ice and snow where winds blow up to 150 miles an hour and temperatures drop to 30 or 40 below.

It was a big job with 12,368,000 cu. yds. of heavy excavation and fill. Because of its importance to our national defense, it had to be completed on schedule. The selection of earth moving equipment for Thule had to be made carefully for men and machines would work under the most adverse conditions . . . and they had to keep working round the clock until the project was completed.

Rear-Dump Euclids—67 of them in all—played a leading part in this record breaking earth moving project. They moved big loads of rock from quarries to crushing plants on long and short hauls. Asphalt for runways was hauled by "Eucs" with heated bodies that kept the material from freezing in spite of the

bitter cold. Their rugged strength and dependable performance kept these Rear-Dumps on the job under the toughest working conditions imaginable . . . with mighty little down time for repairs.

Many of these "Eucs" have now been given another tough assignment by the East Ocean Division of the Army Corps of Engineers . . . they are being transferred to Iceland for more heavy service. On every one of the many defense installations being built by the East Ocean Division in Canada, Iceland and Greenland, "Eucs" are on duty taking the toughest jobs in stride.

When you need earth moving equipment that you can depend on for performance and profits, get in touch with your nearby Euclid distributor.

**EUCLID DIVISION**  
GENERAL MOTORS CORPORATION  
Cleveland 17, Ohio



# Euclid Equipment

FOR MOVING EARTH, ROCK, COAL AND ORE



# FOR THAT **EXTRA MARGIN** IN SHOVEL PERFORMANCE...



MORE OUTPUT even under the toughest conditions . . . more loads per shift in any kind of digging . . . extra loads for that **EXTRA MARGIN** in performance . . . that's what you get from this exclusive combination of shovel front-end features:

1. **TWO-SECTION BOOM** provides maximum strength with minimum weight. The lower section is rigidly connected to the A-frame . . . takes the heavy stresses of the digging cycle in stride because it is part of the main machine.
2. **TUBULAR DIPPER HANDLE** is much lighter than equivalent two-member handle, yet amply strong. Its ability to rotate in the rubber-cushioned saddle block eliminates torsion during the digging stroke, minimizes shock loads.
3. **TWIN DUAL HOIST ROPES** assure a steady, positive digging action with automatic shift of hoist power to that part of the dipper lip where it is needed.
4. **INDEPENDENT ROPE CROWD** is simple, positive and quiet. Shipper shaft pinions and handle racking are eliminated. Crowd machinery is located on main deck rather than on boom — swing inertia is reduced, the operating cycle speeded up.
5. **QUICK CONVERTIBILITY** to dragline of the independent motor type. Hoist and drag functions are powered by separate motors, eliminating operating clutches and brakes.

13L54C

*These features—plus many more—make Bucyrus-Eries the finest heavy-duty excavators ever built: yard for yard, dollar for dollar, pound for pound. Write today for complete information on the 4½-yd. 110-B, the 6-yd. 150-B, or the 8-yd. 190-B.*

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